CONSTRUCTION NEWS

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RAILWAYS.

(*denotes that this work is advertised in *Engineering News*.)

ARKANSAS.—Press advices are to the effect that the Gulf & Magnolia Northern R.R. Co. will let contracts for the clearing, grading and bridging of 48 miles of the line, extend from Junction City south via Magnolia to a connection with the Cotton Belt, at or near Waldo. Plans and specifications are now ready, and it is stated that work will begin not later than Dec. 12. It is estimated that there will be about 300 acres of clearing on the right of way, and that the excavations will amount to about 450,000 cu. yds. and the embankment 700,000 cu. yds. S. I. Sevier, Hope, Ark., is Pres. Noted Sept. 1.

BALTIMORE & OHIO R. R. CO.—Plans are being made to double track the Ohio river division from Wheeling to Kenova, 223 miles. To this end numbers of sidings are being built which will later be joined. A double track right of way is owned over nearly the entire length of the road, and to take care of the heavy tonnage of coal which will soon be diverted over this route the double tracking has become necessary. As part of the plant, proposals are now being received for a bridge over Fishing Creek, below New Martinsville to supplant the present structure. A. W. Thompson, Baltimore, Md., is Ch. Engr.

BUCKANNON & NORTHERN R. R.—Press advices are to the effect that contracts for the construction of this road will be let as soon as the right of way is obtained. The officers are as follows: Pres., J. M. Schoemaker; Vice-Pres., Joseph Wood; Ch. ngr., S. E. Brady, Morgantown, W. Va.; Audr., O. E. Kennedy; Gen. Mgr., Reese Blizzard; Secy., J. T. Blair, 548 Oliver Bldg., Pittsburg.

CANADIAN NORTHERN.—The contract for constructing the first 60 miles of the proposed line from Vancouver to Chilliwac, B. C., and for the 79-mile stretch between Chilliwac and Hope, B. C., has been awarded to THE NORTHERN CONSTRUCTION CO., Winnipeg, Man.

D. D. Mann, Vice-Pres., is at Victoria, arranging for the construction of the road on Vancouver Island. Bids will be called for immediately for clearing the right of way. The main line will run from Victoria to Alberni, via Sooke.

ILLINOIS.—The Elgin Belt Ry. Co. has been incorporated. The principal office is in Elgin. The corporation has a nominal capital stock of $25,000. It is proposed to construct the railroad from Batavia, Kane County, to Des Plaines, Cook County. The incorporators are: Philip Freiler, Joseph Newman, H. C. Eppenstein, J. M. Blackburn and C. F. Terhune, all of Elgin.

LOUISIANA SOUTHERN.—An extension from Belair to Bohemia, La., 20 miles, is contemplated. P. Campbell, New Orleans, La., is Gen. Mgr.

PACIFIC & PEACE RIVER.—Attorneys for the company are applying for a charter to build a line from Belle Coola, B. C., to Dunvegan, Alta., a distance of approximately 480 miles. The charter provides for steamship, express, telegraph, telephone services and the development of water powers along the route. J. F. Conmes, Port Arthur, Ont., is interested.

PENNSYLVANIA. — The Pennsylvania Southern R. R., recently incorporated, has taken over the franchise of the Pittsburg, Summerville & Clarion R. R. Co. A branch line is to be constructed from a point on the Pittsburg, Summerville & Clarion R. R. at or near Hulden Station, to a point on the Jamestown, Franklin & Clearfield R. R., near the boundary line between Clarion and Jefferson counties, that extensive coal deposits may be reached. The connection with the last named road will give an outlet East and West. The officers of the company are: Pres., George W. Megeath, Omaha, Neb.; Vice-Pres. and Gen. Mgr., H. Buckingham, Clarion, Pa.; Secy., Theodore L. Wilson, Clarion; Treas., Joel Tompkins, Clarion.

SEABOARD AIR LINE RY.—The contract has been awarded to E. L. ANDERSON & CO., Dunnellen, Fla., for grading an extension from Fruitville to Venice, Fla., 18 miles. KIBL[illegible], BOSWELL & CO., Dunnellen, have the contract for grading from Hernando to Inverness, five miles. W. L. Sheldon, Portsmouth, Va., is Ch. Engr.

SOUTH CAROLINA.—The Georgia & Carolina Ry. Co. has recently been incorporated to build a railroad from Hamburg to Spartanburg, 120 miles. This will be by the way of Edgefield, Saluda, Newberry, Glen Springs and Pacolet. Allen W. Jones, Midville, Ga., is Pres.; E. A. Pagett, Edgefield, S. C., is Secy.

TUSCARORA VALLEY R. R.—An extension from Blairs Mills, Pa., to Cherry Run, W. Va., 58 miles is contemplated. N. W. Suloff, Port Royal, Pa., is Pres. and Gen. Mgr.

ELECTRIC RAILWAYS

SPRINGFIELD, MASS.—The Springfield St. Ry. has applied to the Railroad Commission for authority to extend some of its tracks on North Main St. in Springfield.

WATERBURY, CONN.—The Connecticut Co. has asked permission of the Board of Aldermen to extend its double track on North Main St., for a distance of about 5,000 ft., and also the right to lay single track in North Vine and Homer Sts. and Thomaston Ave., a total of about 4,000 ft. W. G. Smith, 51 Leavenworth St., is Engr. of Waterbury District. C. C. Elwell, New Haven, is Ch. Engr. (This item is in correction of the item noted on Nov. 24.)

BALSTON SPA, N. Y.—The Schenectady Ry. has been granted permission to extend some of its tracks through Balston Spa. E. F. Peck is Gen. Mgr.

EDGEWOOD, N. Y.—The City & Elm Grove R. R. has applied to the Council to extend the time on its franchise to construct an electric railway in Edgewood.

OCEAN CITY, N. J.—A line will be constructed between Ocean City and Millville by the Millville, Tuckahoe & Ocean City R. R. Co. William G. Moore, Pres. of the Ocean City Electric R. R., is interested.

POTTSTOWN, PA.—The Pottstown & Reading Street Ry. Co. awarded contracts for the construction of a 5-mile extension of its tracks and also for building 4 new iron bridges. C. Taylor Leland, Title Bldg., Philadelphia, is Secy.

WILMINGTON, DEL.—Howard D. Ross, one of the directors of the West Chester & Wilmington Electric Ry. Co., stated that the company will start work on the Wilmington end of the road next week. The proposed line is to run south on the Concord turnpike and connect with the Wilmington & Philadelphia Traction Co.'s line at Market St.

CUMBERLAND, MD.—The Cumberland St. Ry. Co. contemplates constructing an extension to Mapleside. C. G. Holzshu is Secy.

ASHEVILLE, N. C.—B. J. LUTHER & CO. has been awarded the contract for constructing about 1 mile of its extension to West Asheville. Surveys have been made, and the contracts for the work will soon be let.

COLUMBIA, S. C.—The Georgia & Carolina Ry. Co. will build a line from Augusta to Spartenburg, a distance of 130 miles.

HAMBURG, S. C.—The Georgia & Carolina Ry. Co. has been incorporated to build a line from Hamburg to Edgefield, Saluda, Newberry, Glenn Springs and Pacolet. A. W. Jones is Pres., Midville. Capitalized at $2,500,000.

AUGUSTA, GA.—The Augusta Ry. & Electric Co. has made application for a franchise to make an extension of its line on Center St. from Broad St. to the city wharves. James U. Jackson is V.-Pres.

HATTIESBURG, MISS.—It is reported that W. S. F. Tatum and W. O. Tatum have made application for a franchise to construct an electric light plant and street railway system.

DONALDSONVILLE, LA.—The Lafourche Valley & Gulf Ry. Co. has been organized to construct an electric railway between Lockport and Donaldsonville. F. M. Welch is Pres., Donaldsonville.

BRISTOL, TENN.—The construction of a line between Bristol and Kingsport is under consideration by the Bristol Board of Trade. Col. Sam King is interested.

CLEVELAND, OHIO.—Plans of the Shaker Heights Land Co. include the building of a trolley line across the Shaker Lakes Park, connecting with the line of the Cleveland Ry. Co. at Coventry Rd. Henry J. Davis, Secy.

DAYTON, OHIO.—The Dayton St. Ry. Co. will commence construction work on its East End extension as soon as the Council grants a 25-year franchise.

TOLEDO, OHIO.—The Toledo & Indiana R. R., Toledo, Ohio, has been incorporated here to construct an electric railway through Fulton, Lucas, Henry, Defiance, William and Paulding Counties. The incorporators are: George D. Welles, Henry Isenberg and Frank Miller.

DETROIT, MICH.—The Detroit, Bay City & Northwestern R. R. Co. is being organized to construct an electric railway to connect Utica, Detroit, North Branch, Burnside, Romeo, Almont, Imlay City. The Illinois Traction Co., Campaign, Ill., is interested.

EAST ST. LOUIS, ILL. — The Denverside Connecting Ry. has made application to construct a 4-mile railway in Birmingham. The incorporators are: W. M. Kane, E. W. Jordan, C. J. Phillips.

MATTOON, ILL.—The Decatur, Sullivan & Mattoon Transit Co. has decided to commence construction work on its proposed electric railway in the spring.

KANSAS CITY, MO.—The Kansas & Missouri Ry. will commence work in the spring on its electric railway to connect Coldwater, Arcadia, Fort Scott, Grass, Fuller, Nelson, Curranville, Mulberry, Frontenac and Pittsburg, a distance of 37 miles. Officers: Col. L. H. Phillips, 610 Broadway, Kansas City, Pres.; G. H. Dorman, Vice-Pres.; and C. E. Cary, Ft. Scott, Secy.

KANSAS CITY, MO.—The Metropolitan St. Ry. Co. is contemplating extending its line to the Blue Valley. John M. Egan is Pres.

SAN ANTONIO, TEX.—The Board of County Commissioners of Baxer County has granted a franchise to J. A. Logwood for the construction of an electric railway from the terminus of the San Antonio Traction Co.'s track at Harlandale south on the Corpus Christi road through a suburban district.

TEXAS CITY TEX.—Fordyce Ridley, of Galveston, and associates will construct a street railway line here. It will be about three miles in length. Gasoline motor cars will be used.

SEATTLE, WASH.—The Seattle Electric Co. has applied to the Council for a franchise to construct a double-track extension across the proposed Stone Ave bridge from Westlake Ave across Lake Union to Kilbourne St.

TACOMA, WASH. — A franchise has been granted the Tacoma Ry. & Power Co. from the Council to construct a line between Madison St. and Stevens St.

SAN FRANCISCO, CAL.—The Owens River Valley Electric Ry. has been incorporated, capitalized at $200,000, to construct a line in the Owen River Valley. M. R. Jones, Oakland, is interested.

OTTAWA, ONT.—The Ottawa & Kingston Electric Ry. is taking steps to build an electric railway from Ottawa to Kingston and Smith's Falls, via Manotick City, View Kars, Burritt's Rapids and Merrickville. Robert McElroy is interested.

PORT DOVER, ONT.—Press reports are to the effect that the electric road between this place and Brantford will be constructed in the spring. The estimated cost is about $900,000.

MOOSE JAW, SASK.—The Moose Jaw Electric Ry. Co. has made application for a charter for the construction of an electric railway. A distance of 7 miles. A. A. Dion, 35 Spark St., Ottawa, is Pres.

MEXICO CITY, MEX.—The National Congress has passed a bill authorizing the Mexico Tramways Co. to construct two important lines of electric railway. One of the proposed roads is to run between this city and Puebla and the other between here and Toluca. The Puebla line will be about 125 miles long and the Toluca line about 45 miles long. The Mexico Tramways Co. is a subsidiary of the Mexican Light & Power Co., the Canadian concern which has installed a large hydro-electric plant at Necaxa and constructed a system of electric transmission lines radiating to this city and various other towns and industrial centers within a radius of 150 miles. The preliminary surveys for the proposed electric railways have been made. There are a number of important towns and popular resorts along the routes of the proposed roads. It is planned to handle passengers, express, mail and a limited amount of freight on the new lines. The Mexico Tramways Co. already has a number of lines running from this city to suburban towns.

LIGHT AND POWER PLANTS.

(* *Denotes that this work is advertised in Engineering News.*)

PORTLAND, ME.—Construction work has been started by the Consolidated Light Co. on its proposed new power plant.

WINDSOR, VT.—Bids received by the Supervising Architect, Treasury Department, Washington, D. C., on Nov. 22, for installing heating system in the U. S. post-office at Windsor, Vt.: John F. Dalton, New York, N. Y., $9,767; The G. S. Blodgett Co., Burlington, Vt., $5,000; Samuel A. Reed, Windsor, Vt., $6,650; Edward Joy Co., Syracuse, N. Y., $8,885; Newport Contracting & Engineering Co., Newport News, Va., $8,303; Pennsylvania Engineering Co., Philadelphia, Pa., $9,767; W. H. Bodine Co., Bellows Falls, Vt., $6,450.

NEW HAVEN, CONN.—The installation of a 300-kw. rotary converter is under consideration by the Shore Line Electric Ry. Co. at its power house in Waterford. The company will, it is stated, supply electricity to the New London & East Lyme St. Ry.

ALBANY, N. Y.—The Trustees of Public Buildings have just approved plans and specifications for the new power house to be erected on North Hawk St., between Sheridan Ave. and Orange St. The work will cost in the neighborhood of $500,000. The power house when completed will supply heat and power to the Capitol and new Educational Building, through large concrete conduits. The new building is planned with a boiler room of sufficient capacity for ten 380 HP. boilers, making total capacity of 3,800 HP., and an engine room of sufficient size to contain five engines and dynamos of 1,700 KW. capacity. At present there will be installed but eight boilerse and four engines and dynamos. Coal will be contained on either side of the boiler rooms, the coal storage room having a capacity of 7,000 tons. In addition there will be an overhead coal pocket to contain 1,000 tons. Coal will be brought into the building from the Orange St. side and dumped into the storage vaults direct from the carts, and from these vaults it will be carried by conveyors to the overhead pocket, and from there fed by gravity to the boilers. The new building will be of face brick, with stone base and terra cotta trim, and roof work of tile and copper. The vaults will be of reinforced concrete, with the top paved for driveways. The conduits to be built to the Capitol will be of concrete and about 8 ft. square. The conduit work will also necessitate a rearrangement of the city's sewey system. It is expected the work will be advertised shortly, and bids will be received before Jan. 1. The work of heating, lighting and mechanical equipment will not be advertised until after Jan. 1. F. B. Ware is State Arch.

BUFFALO, N. Y.—Bids are being received by the Larkin Co., Seneca St., Buffalo, for the construction of a 2,000-HP. plant elevator equipment and a steam-heating plant. Alternating-current motors from 5 to 50-HP. transformers, switchboard and ammeters will be required. John D. Larkin is Pres.

BROOKLYN, N. Y.—Bids will be received until 3 p. m., Dec. 14, by the State Commission in Lunacy, Albany, N. Y., T. E. McGarr, for electrical work and plumbing in Long Island State Hospital, Brooklyn, N. Y.

NEW YORK, N. Y.—Bids will be received by the Board of Education until 3 p. m., Dec. 8, for electric lights, wiring and fixtures at Grand Ave. school. N. S. Averill is Secy.

NEW YORK, N. Y.—Bids received by the Board of Education on Nov. 28 for installing heating and ventilating apparatus in new Public School 167, Eastern Parkway, Schenectady Ave. and Lincoln Pl., Borough of Brooklyn, were as follows: Raitzler Heating Co., $50,586; E. Rutzler, $43,243; William J. Olvaney, $49,830; Frank Dobson Co., Inc., $44,000; James Curran Mfg. Co., $44,694; Blake & Williams, $46,838.

NEW YORK, N. Y.—Bids will be received by James Knox Taylor, Treasury Dept. Office, Washington, D. C., until 3 o'clock p. m., Dec. 3, for installing a heating and ventilating system in the new U. S. post-office building, New York, N. Y., according to drawings and specification, copies of which may be had at this office or at the office of the architects, Messrs. McKim, Mead & White, 160 Fifth Ave., New York City.

NEW YORK, N. Y.—Bids will be received by Calvin Tomkins, Comr. of Docks, until noon, Dec. 12, for furnishing all the labor and material required for changing the present arc lighting system to a tungsten lighting system on the Recreation Piers. Plans and specifications may be seen at the Dept. of Docks and Ferries.

NEW YORK, N. Y.—Bids will be received by C. B. J. Snyder, Supt. of Buildings, until 3 p. m., Dec. 12, for alterations and additions to the electric equipment in Public School 36, 710 East Ninth St., and Public School 47, 225 East 234 St. Plans and specifications may be seen at the Board of Education, Park Ave. and 59th St.

ALLENTOWN, N. J.—The contract has been awarded to the ADAMS ELECTRIC CO., of Trenton, N. J., for the erection of the proposed municipal electric light plant. The cost is estimated at $40,000. W. W. Young, 220 Broadway, New York, is Engr.

ROME, N. Y.—Bids will be received until Dec. 7 by the Board of Public Works for street lighting. H. C. Midlans is Clk.

*PLAINFIELD, N. J.—Bids will be received by the Common Council until 8 p. m., Dec. 19, for furnishing and erecting two pumping plants complete, including motors, compressors and ejectors, in duplicate, air receivers and pipe connections. Plans and specifications may be obtained at the office of James T. MacMurray, City Clk., 151 North Ave., Plainfield.

CLARION, PA.—The contract will soon be awarded for power plant and equipment. The plant will consist of the following: 3 500-KW. Turbo generator sets, condensing, steam pressure, 200 lbs., either vertical or horizontal; 3 350-HP. vertical or horizontal water-tube boilers, fuel to be gas and soft coal; 3 surface condensers, vacuum pump, open-feed water heater; 2 boiler feed pumps, either duplex or multi-stage, driven by steam turbine; 3 20-KW. exciter sets; 6 motor generator sets; 3 circulating pumps, hot well pump, transformers and sub-station equipment. Plans and specifications may be obtained at the office of the Clarion & East Brady Electric Ry. Co.

SHARPSBURG, PA.—The contract has been awarded to the OIL CITY BOILER WORKS, Oil City, Pa., for furnishing and installing two 300-HP. boilers, feed-water heater, feed pump and necessary piping at the municipal light and water plant.

PHILADELPHIA, PA.—ALBERT DOAK has been awarded the contracts for setting two boilers for the Eastern Light and Fuel Co., Glassboro, N. J., and another boiler for William Steele & Sons Co., 714 Market St.

PHILADELPHIA, PA.—Estimates are being prepared by Irwin & Leighton for a power house at 44th and Thompson Sts., to be constructed for the Chalfont Bros.

HAGERSTOWN, MD.—Plans are being prepared by Pierre O. Keilholtz, Engr., 615 Continental Bldg., Baltimore, Md., for the construction of a power house for the Union Power Co. Bids will soon be called for.

WASHINGTON, D. C.—The Capital Traction Co. is considering plans for the construction of a power house on Thirty-sixth St. and M St., in Washington.

OCCOQUAN, VA.—The contract has been awarded to the NATIONAL ELECTRICAL SUPPLY CO., 1230 New York Ave., Washington, D. C., for furnishing and installing a complete electric lighting plant.

CHASE CITY, VA.—J. Kent White, Waynesboro, Va., has been realned by the city to prepare plans and specifications for proposed electric light plant and waterworks. The estimated cost is $20,000.

CREWE, VA.—The Crewe Electric Plant has incorporated, capitalized at $25,000. W. L. Willis is Pres., C. E. Wilson is Vice-Pres., and S. E. Moore is Secy.-Treas.

BLUEFIELDS, W. VA.—The contract for concrete foundations for the additions to the Bluefields Gas & Fuel Co.'s plant have been awarded to W. H. McATOR, and estimates on the buildings and machinery are now being received. The plans contemplate the increase of the daily capacity of the plant from 100,000 to 300,000 cu. ft. A new building is to be erected, 100x200 ft. in size, with an apparatus room 30x40 ft., to contain two semi-recuperative benches and six retorts each and a 50-HP. locomotive boiler. Ten miles of 4-in., 6-in. and 8-in. main are to be laid.

CHARLESTON, W. VA.—The Kanawha Water & Light Co. has ordered plans prepared for the complete rewiring of the business district of the city and the buildings supplied with current, to conform to the recent revision of the rules of the City Board of Affairs.

BLACK MOUNTAIN, N. C.—The Blue Ridge Association contemplates the construction of a dam and electric plant. F. C. Abbott, Secy.-Treas., Charlotte, N. C.

WARRENTON, N. C.—The construction of a municipal electric light plant is being contemplated. J. H. Bridges, Henderson, N. C., is Consult. Engr.

ROCK HILL, S. C.—C. B. Rucker, Charlotte, N. C., has been engaged as engineer in charge of construction of proposed electric light plant.

COLUMBIA, S. C.—The CRUSE-CAMPER CO., Philadelphia, Pa., has been awarded the contract for the construction of a gas container for the Columbia Gas Light Co. The estimated cost is about $27,000.

CAIRO, GA.—The contract has been awarded to J. B. McCRARY & CO., Atlanta, Ga., for improvements to the municipal electric light plant.

MEMPHIS, TENN.—L. W. Dutro, Memphis, Tenn., has made arrangements with Eastern capitalists to form a company for purpose of developing gas for lighting and fuel purposes. Others interested in the project are C. Colgate, E. E. Macy and E. D. Hawkins, New York, and J. M. Overton, Nashville.

MIDWAY, KY.—The citizens of this place voted in favor of issuing bonds to the amount of $6,000 for the construction of an acetylene gas plant.

VINE GROVE, KY.—The installation of an electric plant to supply electricity for lamps in Vine Grove is under consideration by W. A. Burkhart, of the Vine Grove Milling Co.

EMPIRE, OHIO.—The Union Clay Manufacturing Co. has awarded the contract to the RISINGER MANUFACTURING CO., East Liverpool, Ohio, for all electrical work in its plant.

CORTLAND, OHIO.—The Warren Water & Light Co. will extend a power cable line to Cortland and will place 88 100-CP. Tungsten lamps for street illumination.

MOORESVILLE, IND.—The Mooresville Water, Light & Heat Co., recently incorporated with a capital of $100,000, is preparing to ask for bids for furnishing all material and labor for the construction and equipment of a combined water, light and heat plant. E. L. Deupree, Clarence Deupree and E. H. Emerick are directors.

NEWCASTLE, IND.—Improvements to the municipal electric light and water works system are under consideration.

GRAND LEDGE, MICH.—The Commonwealth Power Co. is reported to be installing an ornamental lighting system at Grand Ledge in place of the present system. W. A. Foote is Pres. and Mgr.

MARSEILLES, ILL.—Arrangements are being made by the Western Ry. & Light Co. to commence construction work on a new hydro-electric power plant at Marseilles. The estimated cost is about $300,000.

EAU CLAIRE, WIS.—The Chippewa Valley Ry., Light & Power Co. has finished making for furnishing light and power in Bloomer. Geo. B. Wheeler is Secy. and Gen. Mgr.

BELLE PLAINE, IOWA.—The contract has been awarded to the AMERICAN CONSTRUCTION CO., Newton, Ia., for the construction of a plant at $25,000.

BONAPARTE, IOWA.—The development of the water power in this place is under consideration. S. E. Irish, Bonapart, is interested.

NEWTON, IOWA.—The citizens of this place have voted to issue $40,000 in bonds for the erection of a municipal gas plant.

DASSEL, MINN.—Press reports are to the effect that the construction of an electric light plant is under consideration here.

STRAFFORD, KAN.—Bonds to the amount of $25,000 have been voted by the citizens of this place for the purchase of an electric light plant.

HOWARD, S. DAK.—The contract has been awarded to HARRY LYONS, Sioux City, for the erection of an electric light plant.

JEFFERSON, MO.—Bids will be received by James Knox Taylor, Treasury Dept., Wash., D. C., until 3 p. m., Dec. 22, for a conduit and wiring and gas piping systems at the United States post-office and court house at Jefferson City, Mo., in accordance with plans and specification, copies of which may be had at this office or at the office of the custodian at Jefferson City, Mo.

HAZEN, ARK.—It is reported that construction work will soon commence on the plant of the Hazen Power & Light Co. W. H. Fox is Pres.

AUSTIN, TEX.—The Dumont-Holmes Steel Concrete Co., which entered into a contract with the city of Austin several months ago for the reconstruction of the dam across the Colorado River at this place and the installation of a hydroelectric plant, recently transferred the contract to H. L. DOYLE, Chicago. The Hydraulic Properties Co., of New York, claim that they have a prior assignment conveying the same contract. The matter will probably be settled in the courts.

BEEVILLE, TEX.—The Beeville Ice and Power Co. has purchased the holdings of the Beeville Ice Co. and announces that it will install an electric light and power plant to be run in conjunction with the ice factory.

VICTORIA, TEX.—The Victoria Manufacturing Co. is installing a new electric light plant. The lighting system consists of 150 60-CP. Tungsten lamps and seven 1,200-CP. arc lights.

TULSA, OKLA.—Tulsa Corporation is stated to be contemplating increasing the capacity of its electric light plant.

OKLAHOMA CITY, OKLA.—Bids will be received by James Knox Taylor, Treasury Dept., Wash., D. C., until 3 p. m., Dec. 23, for the installation of a heating and ventilating apparatus in the U. S. Post Office, Oklahoma City. Plans and specifications may be obtained at the Treasury Dept., Wash., D. C.

Bids will be received by James Knox Taylor, Treasury Dept., Wash., D. C., until 3 p. m., Dec. 28, for a gas piping and a conduit and wiring in the U. S. Post Office, Oklahoma City, Okla. Plans at Treasury Dept., Wash., D. C.

NELAGONY, OKLA.—Osage Manufacturing Co. is contemplating the installation of an electric light and power plant. J. S. Roberts, Joplin, Mo., is Pres.

BOULDER, COLO.—The Central Colorado Power Co. is extending its lines from Frigid Mine to supply electricity to operate the compressor plant. A large electric motor is being placed in the Wolf Tongue mill to take the place of the water-power plant.

ALAMOGORDO, N. MEX.—The Alamogordo Improvement Co. is contemplating the erection of a series of power plants for the purpose of supplying electricity for various towns in that district.

NORTH YAKIMA, WASH.—The contract has been awarded to the PACIFIC LIGHT & POWER CO. for the installation of an ornamental lighting system in this place. The power house will be enlarged and additional machinery installed.

SPOKANE, WASH.—The National Power Co., Spokane, is contemplating the erection of a plant at Dishman. A number of buildings will be erected and machinery installed by the first of the year. The estimated cost is about $40,000.

CENTRALIA, WASH.—Bids will be received by the City Clerk, Centralia, until 5 p. m., Dec. 6, for the delivery of machinery for a 1,000-KW. turbo-generator lighting plant. C. D. Atterbury is City Engr.

NEVADA CITY, CAL.—The Pacific Gas & Electric Co. has filed articles of incorporation in Nevada City, capitalized at $3,000,000. The incorporators are: E. de Sabla, John Martin and F. G. Drum.

LOS ANGELES, CAL.—The F. O. ENGSTROM CO., Fifth & Seaton Sts., Los Angeles, has been awarded the contract at $160,000 for the erection of the superstructure for the large power plant at Long Beach for the Southern California Edison Co. The building will consist of a generator and boiler room, 72x136 ft. and 82x221 ft., respectively, and 60 feet high. The construction will be entirely of reinforced concrete, with twisted steel reinforcement, except a portion of the wall, which will be of steel and brick construction, to provide for future enlargement. The floors will be of reinforced concrete, from 6 to 12 in. thick. The roof will be supported by steel trusses and columns.

LOS ANGELES, CAL.—See item under Manufacturing Plants.

WONDER, CAL.—The Mono Electric Power Co. has completed surveys for the construction of its proposed transmission line from Wonder to Lucky Boy. The line will carry about 6,000 volts and will furnish power to mining companies and various industries for motors and lamps.

VENTURA, CAL.—Bids will be received by the Board of Supervisors until 2 p. m., Dec. 8, for the installation of lights in Ventura Ave. J. B. McCloskey is Clk.

TIBURON, CAL.—Bids will be received at the Bureau of Yards and Docks, Navy Dept., Wash., until 11 a. m., Dec. 3, for furnishing and installing at the United States Naval Coal Depot, Tiburon, Ca., two boilers, one boiler feed pump, one steel stack, one motor generator, set one transformer, a switchboard, wiring, piping, etc., and installing a generating set to be furnished by the Government. Plans and specification can be obtained on application to the Bureau. R. C. Hollyday is Ch. of the Bureau.

COLUSA, CAL.—C. F. Downing, William Whales and Mr. Steele, officials of this company, have been arranging for the commencement of work on the new power line. The new line will carry a voltage of 15,000, and on completion, the old line from Gridley will be abandoned. The work on the substation will commence at once.

LOS ANGELES, CAL.—H. W. Burkhart, acting for the Southern California Edison Co., has awarded contract to CHAS. W. CORBALEY for the construction of a concrete foundation for a 500,000 cu. ft. gas holder to be erected at Long Beach at $5,175.

QUEBEC, QUE.—A franchise has been granted to the Dorchester Electric Co. to enter the city from the south shore and to supply electricity in Quebec. The company will erect a plant. The estimated cost is about $200,000.

SHERBROOKE, QUE.—Bids will be received until Dec. 29 for the erection of a power plant on Magog River. Plans and specifications prepared by Ross & Holgate, Montreal. The estimated cost is about $60,000.

MONTREAL, QUE.—The BISHOP CONSTRUCTION CO., Montreal, has secured the contract from the East Canada Power & Pulp Co. for the construction of a large water power development and pulp mill, costing about $500,000, on the Malbaie River, above Murray Bay, 80 miles east of Quebec City.

MONTREAL, QUE.—The city has decided that underground conduits must be installed. A number of civic officials will make an inspection of the various streets.

DUNDAS, ONT.—The Hydro-electric Power Commission has entered into a contract with the Town Council for 600 HP. to operate the municipal electric system.

TORONTO, ONT.—Bids will be received until 4 p. m., Dec. 12, by R. C. Desrochers, Secy., Dept. of Public Works, for electrical supplies for the post office at Toronto.

WINNIPEG, MAN.—EUGENE & PHILLIPS ELECTRICAL CO., Montreal, has been awarded the contract by the city for the supply of 200,000 lbs. of wire for the electrical power plant at 16¾ cts. per lb., and 100,000 lbs. of cable at 17 cts. per lb. The WIRE & CABLE CO., Montreal, have been awarded the contract for rubber-covered cable costing $1,269.40. Cecil B. Smith, Civic Power Expert.

DURANGO, MEX.—The Compania de Madera de la Sierra, which operates lumber mills near Llano Grande, will install a hydroelectric plant in the San Vicente District.

GUANACEVI, MEX.—E. Schondube, of Mexico City, has been granted a concession by the government of the state of Durango for the installation of a large hydroelectric plant and the construction of a system of transmission line in this section of Mexico. The proposed plant will be located near Guanacevi and the electric current will be conveyed to this mining district and to the districts of El Oro, Tepehuanes and Inde. The concession requires that Mr. Schondube shall furnish to the state government for such use as it may require light and power for the period of five years, free of charge, and after that time it is to be furnished at 50 per cent. less than to other consumers.

MEXICO CITY, MEX.—A large electric sign will be erected on the house tops near the corner of San Juan de Letran St. and Avenida San Francisco. It has been designed by H. R. Ross, New York, and will be 60 ft. long by 30 ft. wide, supported on pillars 25 ft. above the roofs. Above the top of the sign these pillars will continue to terminate in large electric torches. Directly above the sign, and also borne by the two pillars, will be 1,800 ft. of advertising space.

BRIDGES.

(** denotes that this work is advertised in Engineering News.*)

MANCHESTER, MASS.—The Strauss Bascule Bridge Co., Chicago, Ill., has completed plans for the construction of a 65-ft. steel bridge, double-track, single leaf, for the Boston & Maine R. R. Co., here. J. P. Snow is Ch. Engr.

BOSTON, MASS.—Plans for the construction of a stone bridge across the Charles River to Cambridge have been prepared by John Claff. Estimated cost, $400,000. L. K. Rourke is Acting City Engr.

PROVIDENCE, R. I.—The Board of Aldermen has passed a resolution providing for an appropriation of $20,000 for repairing the Crawford St. bridge. O. F. Clapp is City Engr.

ALBANY, N. Y.—See item under Miscellaneous Contracts: "Barge Canal."

BUFFALO, N. Y.—The Grade Crossing Commission decided on Nov. 17 to grant the petition of the property owners for the erection of two viaducts, one at Doab St. and the other at Genesee St., to eliminate the grade crossing of the Erie R. R. F. G. Ward is Comr. Pub. Wks.

CARLTON, N. Y.—The citizens on Nov. 15 voted to issue $12,800 of bonds for constructing two bridges over Oak Orchard Creek, one at Kenyonville and the other at Two Bridges.

NEW YORK, N. Y.—The following bids were received on Nov. 25, by the Department of Bridges, for constructing the elevators, stairs, drainage, ornamental and electrical work for the anchor piers, of the Queensboro Bridge, over the East River, between he Boros. of Manhattan and Queens: J. M. Knopp, $82,931; Concord Construction Co., $76,275; Charles Wille, $78,079; Thomas J. Buckley, 103 Park Ave., $79,099; Snare & Treist Co., 143 Liberty Ct., $75,770; Louis Wechaler, $66,500; Fox, Hennessey Co., $65,000; J. Williams, $52,400; Charles Meades, $53,700; Kelly & Kelley, 45 East 42d St., $75,667; North-Eastern Construction Co., 225 Fifth Ave., $76,170.

BUTLER, PA.—The Butler Passenger Ry. Co. has applied to the Council for a franchise to construct a 750-ft. viaduct in Center Ave., across the Bessemer & Lake Erie and the Baltimore & Ohio R. R. tracks. W. H. Pape is Gen. Mgr.

HARRISBURG, PA.—The Philadelphia & Reading Ry. Co. is prepared to aid the city in the construction of the 13th St. bridge to the extent of bearing half the cost. Plans will be prepared by M. B. Cowden, City Engr. Estimated cost, $36,000.

BENTLEYVILLE, PA.—The Grand Jury has approved the construction here of a concrete and steel bridge, 50 ft. long. Estimated cost, $4,796.

ALLENTOWN, PA.—The Board of Commissioners of Lehigh County have rejected all bids for widening the Hamilton St. bridge. New bids will be asked. List of bidders noted on Nov. 24.

MORGANTOWN, W. VA.—Engineers of the Buckhannon & Northern R. R. Co. are making surveys for the construction of bridges and arches which will be necessary in the construction of the new railroad up the west side of the river. Eight steel bridges will be needed. R. E. Kerr is Engr.

PERRY, FLA.—Bids will be [illegible]ved until Dec. 5 by John C. Calhoun, [illegible] County Comrs., Perry, Taylor County, [illegible] the construction of a 54-ft. steel bri[illegible] across the Econfina River.

TALLADEGA, ALA.—The [illegible] Commissioners Court on Nov. 17 de[illegible] to construct a steel bridge across the [illegible] Ry. tracks in the northeastern part [illegible]y.

BIRMINGHAM, ALA.—It is r[illegible] that the proposal submitted to the [illegible] the railroad companies relative to [illegible]ruction of a viaduct has been rejected on Nov. 24. Maury Nicholson [illegible] Engr.

HARLAN, KY.—Plans have be[illegible]pted for the construction of a steel [illegible] over Clover Fork. Estimated cost, $1[illegible] The plans were prepared by Prof. W[illegible]owe, C. E., State University, and Fred [illegible]nley, Consult. Engr., Lexington, Ky.

CLEVELAND, OHIO.—Bids will [illegible] received by the Board of Commi[illegible]rs of Cuyahoga County until 11 a. m., [illegible] 17, for bridge work per report No. 27[illegible]nking Brooklyn-Brighton viaduct, Brook[illegible] Township. Frank R. Lander is County [illegible]ry.

CINCINNATI, OHIO.—Plans h[illegible] been completed for the construction of t[illegible] Gilbert Ave. viaduct. The plans provide f[illegible] a concrete and steel structure, of ornam[illegible]al pattern. The bridge will be about 9[illegible]t. long and have a 60-ft. roadway. Trolle[illegible]oles to support electric wires will be plac[illegible] in the center of the roadway. A row of [illegible] piers will support the structure. They will be built solid of concrete, and form [illegible] many arches. The solid filling over the arches will be panelled into various designs. B. H. Miller is City Engr.

YOUNGSTOWN, OHIO.—Bids will be received by the Board of County Commissioners of Mahoning County, until 11 a. m., Dec. 22, at the County Auditor's office, Youngstown, for furnishing the necessary labor and material for constructing a steel bridge 405 ft. in length over Powers Run on Powers Way, in Youngstown Township. Specifications may be seen at the office of Will B. Jones, County Audr., after Nov. 28.

INDIANAPOLIS, IND.—Bids were received by the Commissioners of Marion County, on Nov. 10, for the construction of a bridge over Williams Creek, in Washington Township; also for the construction of six concrete culverts and one retaining wall. Contract has been awarded to the AMERICAN CONSTRUCTION CO., Indianapolis, at $8,650. Albert Sahm is Audr.

INDIANAPOLIS, IND.—The Commissioners of Marion County will receive bids until 10 a. m., Dec. 2, for the construction of a concrete culvert in Decatur Township. Albert Sahm is County Audr.

MENOMINEE, MICH.—The city and the city of Marinette, Wis., are considering the construction of a steel bridge across the river between the cities.

CHICAGO, ILL.—A proposition providing for the issue of $3,250,000 of bonds for the construction and improvement of bridges will be submitted to a vote of the citizens in the spring. John Ericson is City Engr.

SUPERIOR, WIS.—The Council Committee on Bridges is considering the construction of a bridge over the Nemadji River, at Fourth St. Estimated cost, $100,000.

TOPEKA, KAN.—The Santa Fe System is arranging to renew bridge No. 10, on the Southern Kansas Division. Estimated cost, $18,000. C. A. Morse is Ch. Engr. of Bridges, Topeka.

ROZEL, KAN.—The Commissioners of Pawnee County have awarded the contract for the construction of an 80-ft. reinforced concrete arch bridge over the Pawnee River here to the TOPEKA BRIDGE & IRON CO., Topeka, Kan., at $5,365.

COFFEYVILLE, KAN.—The Santa Fe System is preparing to replace the Verdigris River bridge located about 1½ miles from here, with a heavier structure.

NEWTON, KAN.—Bids for the erection of three pile bridges, one between Sections 26 and 35, Highland Township, and one between Sections 29 and 32, Darlington Township, and one between Section 35, Pleasant, and Section 2, Richland Township, will be received until noon, Dec. 7, by the County. Bids may be made for each bridge or any combination of bridges. J. A. Hunter is County Clk.

OMAHA, NEB.—The City Council has passed an ordinance ordering the construction of a new viaduct over the tracks on Eleventh St. Plans have also been submitted for the construction of the Locust St. viaduct by the City Engineer. Estimated cost, $80,000.

GALENA, MO.—The Stone County Court on Nov. 15 awarded the contract to the WESTERN BRIDGE CO., Kansas City, Mo., for constructing a bridge across the James River here, at $12,000.

KANSAS CITY, MO.—A new footbridge will be constructed by the city at Broadway and 24th St.

HOPE, ARK.—The Gulf & Magnolia Northern R. R. Co., S. Q. Sevier, Pres., will construct 2,500 lin. ft. of pile bridging and 3,500 ft. of culvert work.

BRADY, TEX.—The county will construct two bridges across the Colorado River. Bonds have been voted.

OKLAHOMA CITY, OKLA.—The contract for the construction of a reinforced concrete bridge over the Canadian River here has been awarded to the TOPEKA BRIDGE & IRON CO., Topeka, Kan. The bridge consists of three 70-ft. spans and 7[illegible]-ft. roadway.

SEATTLE, WASH.—The International Contract Co., Seattle, has submitted the lowest bid to the Board of Public Works for the construction of a drawbridge across the West Waterway at Spokane St., at $[illegible]9,614. R. H. Thomson is City Engr.

***CHEHALIS, WASH.**—The Board of County Commissioners of Lewis County will receive bids at Chehalis until 2 p. m., Dec. 6, for the furnishing of steel or construction of the following bridges: One steel span over the Chehalis River; one steel span over the Skookum Chuck River; one steel span over the Newaukum River, and one span over Lackamas Creek. Bidders are to furnish own plans. H. H. Swofford is County Audr.

RITZVILLE, WASH.—The Board of Commissioners of Adams County has let the contract for three bridges in the western part of the county to the COAST BRIDGE CO., Portland, Ore. One is a 60-ft. steel span, with a 300-ft. trestle, across Crab Creek, nine miles northwest of Othello. The other two are near the new town of Schragg, on the Ritzville-Ellensburg cutoff. Each is a 60-ft. span, with long approaches. The contract price for the three was $7,723.

SEATTLE, WASH.—The Oregon & Washington R. R. Co. has been granted a permit by the Board of Public Works for the construction of a steel concrete bridge on Jackson St., between Fourth and Fifth Aves., South. R. H. Thomson is City Engr.

PORTLAND, ORE. — Contract will be let before Jan. 1 for the construction of the Broadway Bridge. The structure will be of the bascule type and will be constructed across the Willamette River. The West Side approach will start at Seventh and Hoyt Sts., and will be built across the Northern Pacific Ry. Terminal Grounds to Front and Lovejoy Sts., thence across the Willimette River at right angles to the foot of Broadway on the East Side. The structure will be built to accommodate both street car and vehicle and foot traffic. Bonds for $750,000 have been sold. J. W. Morris is City Engr.

SAN DIEGO, CAL.—We are officially advised that the contract for the construction of a bridge of two 100-ft. spans and three 40-ft. spans across the Santa Marguerita River, near Ysidora, has been awarded to CHARLES STEFFGEN, Los Angeles, Cal., at $6,260. Noted on Nov. 24.

SAN LUIS OBISPO, CAL.—Bids were received on Nov. 10 as follows, by the Board of Supervisors for the construction of a reinforced concrete bridge across San Simeon Creek on the San Luis Obispo and San Simeon Road: Charles W. Deacon, $6,110; W. J. Smith, $5,358; Misner & Rice, $6,050; C. W. Corbaley, $6,242; Moriority & Perkins, $6,438. The contract was awarded to W. J. SMITH.

LOS ANGELES, CAL.—The city will soon spend $30,000 to reconstruct the underpinning and piers of the bridges across the Los Angeles River. Homer Hamlin is City Engr.

UKIAH, CAL.—We are officially advised that the county has awarded contract to the MERVY-ELWELL CO., East Oakland, Cal., for the construction of a 460-ft. bridge over Russian Gulch, at $7,340. E. H. White is Deputy County Clk.

OAKLAND, CAL.—The Countp Surveyor is preparing estimates for the renovation of the Webster St. bridge.

STOCKTON, CAL.—The Clerk of the Board of Supervisors will receive bids until 10 a. m., Dec. 5, for the construction of a trestle bridge with concrete abutments and piers over Duck Creek, on the county road. Eugene D. Graham is Clk.

MADERA, CAL.—Bids will be received by the Clerk of the Board of Supervisors until 10 a. m., Dec. 6, for furnishing all materials and labor for the erection and construction of a county bridge across Cottonwood Creek.

SAN FRANCISCO, CAL.—The Ocean Shore Co. will replace the wooden bridge at San Jose Ave. and Regent St., and at Sickles Ave. and De Wolf St., with a steel and concrete structure.

CAMP VERDE, ARIZ.—We are officially advised that the contract for the construction of a steel truss bridge on a concrete foundation has been awarded by the Territorial Board of Control to the MISSOURI VALLEY BRIDGE & IRON CO., Leavenworth, Kan., at $18,300. The bridge will have three 100-ft. spans and will be 20 ft. wide. J. B. Girand is Territorial Engr., Phoenix, Ariz.

BOISE, IDAHO.—The Board of County Commissioners of Ada County, Boise, are asking for bids for the construction of a wooden bridge, with concrete piers, across Indian Creek, between Sections 25 and 26, Township 2 North, Range 1, West, in Ada County.

GAINESVILLE, ONT. — The HAMILTON BRIDGE CO., Hamilton, Ont., has been awarded the contract for supplying the material for the Temiskaming & Hudson's Bay Ry. Co.'s steel bridge here.

BUILDINGS.

*(*Denotes that this work is advertised in Engineering News.)*

ATHOL, MASS.—The contract to erect a building for the Y. M. C. A. has been awarded to B. G. McGUIRE, of Providence, R. I. It will be a 3-story and basement structure, of brick, with stone trimmings. The site is now being cleared. Cost, $50,000.

ATTLEBORO, MASS.—The contract to erect a court-house here has been awarded to HARTWELL, KINGSTON & CO., of Providence, R. I., at $54,435.

BOSTON, MASS.—A high school of commerce is to be erected here, it is stated. Charles Logue is Chn. School House Comn. Estimated cost, $100,000.

The following bids were received on Nov. 21 by Charles Logue, Chn. School House Comn., for constructing the George T. Angell School: William Crane, $64,089; J. E. Locatelli Co., Inc., $65,800; McGahey & O'Connor, $66,789; P. P. Griffin & Co., $67,394; L. D. Cadario & Son, $70,319; C. S. Cunningham & Sons Construction Co., $73,975; A. Varnerin & Co., Inc., $75,446.

SPRINGFIELD, MASS.—A building permit was issued recently by Fred W. Lumis, Building Comr., for the construction of the fire headquarter's building at the corner of Water and Court Sts. Cost, $100,000.

NEW YORK, N. Y.—Plans are being prepared by Buchman & Fox, Archs., 11 East 59th St., for the erection of a 12-story fireproof loft building at 36-38 West 27th St., for Bloomingdale Bros., Third Ave. and 59th St. The contract will be awarded soon. Cost, $200,000.

We are officially advised that the contract to build a 27-story building at the southwest corner of Broadway and Park Pl., has been awarded to the FOUNDATION CO., 115 Broadway. The Broadway-Park Place Co. is the owner. Cost, $500,000. Noted last week.

NEW YORK, N. Y.—Plans are being prepared by G. F. Pelham, Arch., 507 Fifth Ave., for the construction of a 6-story apartment house on the west side of Audubon Ave., between 187th and 188th Sts. The owner is the Balland Realty Co., 263 West 23d St., Joseph Wittner, Pres. It will be 189.9 × 67.5 ft. Cost, $200,000.

Plans have been filed for the erection of two 5-story brick tenements, 50 × 95 ft., on the east side of Marion Ave., 150 ft. south of 196th St. Miltern Bros., 63 Henry St., Corona, L. I., are the owners. John P. Boyland, 103 East 125th St., is Arch. Estimated cost, $100,000.

Plans for four 5-story brick tenements have been filed, to be constructed for the Fairfax Building Co., 5 East 42d St., at the southeast corner of Washington Ave. and 188th St. John P. Boyland is the Arch. Cost, $170,000.

NEW YORK, N. Y.—The general contract has been awarded to the WILLIAM CRAWFORD CO., 5 East 42d St., for the 6-story granite and limestone store and loft building, 35 × 125 × 47 ft., to be located at 715 Fifth Ave. and 224 East 56th St., for Woodbury G. Langdon, 719 Fifth Ave. Trowbridge & Livingston, 527 Fifth Ave., have completed the plans. The cost is estimated at about $100,000.

M. W. Minsky, Vice-Pres. of the 14th St. Construction Co., will be ready to accept bids from sub-contractors about Dec. 15, for an 8-story fireproof loft building, to cover a plot, 150 × 125 ft., at the southeast corner of Broome and Lewis Sts. Estimated cost, $200,000. Sommerfeld & Steckler, 19 Union Sq., are the Archs. and Lewis Minsky, the owner.

MARC EIDLITZ & SON, 489 Fifth Ave., have received the general contract to erect the fireproof residence, 25 × 74 ft., at 34 East 70th St., for Laura K. Bayer, 45 East 77th St. Taylor & Levi, 105 West 40th St., are the Archs. Cost, $50,000.

Plans are being prepared for the improvement of the six plots, on the northside of Cathedral Parkway, 175 ft. west of the junction of Lenox and St. Nicholas Aves. The property has a frontage of 150 ft. and a depth of 70.11 ft. The Merritt & Ferguson Construction Co., now the owner of the site, will erect an apartment house. Schwartz & Gross, 347 Fifth Ave., are the Archs.

The National Cloak & Suit Co., 207 West 24th St., contemplate the erection of an addition, on a plot 78.3 × 200 ft., on Seventh Ave., between 24th and 25th Sts. Ditmars & Brite, 111 Fifth Ave., are Archs. William Rosenbaum is Treas.

NEW YORK, N. Y.—Plans have been filed for the construction of a 20-story office building, 84 × 197.6 ft., at 15 to 19 East 26th St., and 10 to 14 East 27th St. Henry Corn, 341 Fifth Ave., is the owner. Maynicke & Franke, 298 Fifth Ave., are Archs. Cost, $700,000.

Neville & Bagge, Archs., 217 West 125th St., have prepared plans for the erection of five 5-story tenements, 50 × 47.7 ft., on the south side of 130th St., 120 ft. east of Cypress Ave. Patrick McMorrow, 157th St. and Broadway, is the owner. Cost, $275,000.

Plans for four 5-story brick tenements to be built on the west side of Prospect Ave., from 169th to Freeman Sts., have been filed. G. M. Karpas, 263 West 23d St., is owner and George F. Pelham, 507 Fifth Ave., Arch. Cost, $160,000.

NEW YORK, N. Y.—The following bids were received on Nov. 28 by C. B. Snyder, Supt. Bldgs., Dept. of Education, for constructing Public School No. 171, Boro. of Brooklyn: T. A. Clark Co., $283,000; Charles Willie, $280,934; H. C. Stowe Construction Co., $275,500; Dickinson Co., 1170 Broadway, $262,064; George F. Driscoll, $276,798; F. T. Nesbit Co., Inc., 116 Nassau St., $282,617; James McArthur, $281,773; John Kennedy & Co., $294,000; John Auer & Son, $273,932; Kerr & Krinkle, $293,578; Concord Construction Co., $296,730; Thomas McKeown, $277,700; R. E. Henningham, 1 Madison Ave., $289,450; Keenan & Carrigan, $271,440.

NEW YORK, N. Y.—Plans have been filed for a 6-story apartment house on the south side of 139th St., 150 ft. west of Amsterdam Ave., for the William M. Moore Construction Co., at a cost of $100,000. The building will have a frontage of 100 ft. and a depth of 86.11 ft., and accommodations for 41 families. Sommerfeld & Steckler, 19 Union Sq., are the Archs.

Bids are being received by the Jaybee Improvement Co., 621 East 135th St., for the erection of two 5-story brick, stone and iron tenements. One will be built on the northeast corner of Webster Ave. and 182d St., and the other at Park Ave. and 182d St. Samuel Sass, 32 Union Sq., is Arch. Cost, $50,000 each. Noted last week.

BUFFALO, N. Y.—The Buffalo Paragon Wall Plaster Co., F. L. Lane, Mgr., 54 Broadway, has prepared plans and is receiving bids for warehouse, stable and office building of brick and concrete to be erected at Michigan St. and Broadway.

BUFFALO, N. Y.—The Collins Baking Co., Clinton and Adams Sts., will erect a 2-story brick garage and delivery vehicle building at 20 Adams St.

The Lehigh Valley R. R. Co. has completed plans for a 1-story brick freight house addition at Scott and Washington Sts. John W. Holcomb, of Buffalo, is Superv. of Bridges and Buildings.

BUFFALO, N. Y.—By vote of the City Council, Francis G. Ward, Comr. of Public Works, Municipal Bldg., has been authorized to have plans prepared and secure bids for Convention Hall and Exposition Hall to be erected on the 65th Regiment Armory site, Broadway and Potter and Minor Sts.

The City Council has taken action in favor of the Bennett Park site, at Clinton, Cedar and Eagle Sts., for the location of the proposed Technical High School, and same has been approved by the Mayor. The construction of the building will be proceeded with from plans of William C. Miller, Arch., Mutual Life Bldg., originally prepared for the Broadway Arsenal site, and which are adaptable for the new site. Estimated cost, $40,000.

NIAGARA FALLS, N. Y.—We are officially advised that the TURNER CONSTRUCTION Co., 11 Broadway, has been awarded the contract for the construction of a reinforced concrete warehouse, one story high, 22 × 96 ft., to be erected for the Shredded Wheat Co., at the Niagara Falls plant. Work will be started at once.

LOCKPORT, N. Y.—Brickell & Lamphear, D. S. Morgan Bldg., Buffalo, have plans in preparation for a 3-story and basement stone building, 60 × 157 ft., of brick and structural iron, fireproof, to be erected here by Jenss Bros. Estimated cost, $50,000.

ROCHESTER, N. Y.—Gordon & Madden, Archs., Sibley Bldg., are preparing plans for an exposition building, 100 × 300 ft., one story, of stone, brick and steel construction, to be erected by the city of Rochester. Estimated cost, $40,000.

SYRACUSE, N. Y.—The following contracts have been awarded for constructing the Arena at Tallman St. and Cortland Ave., with an entrance on South Saline St.: General, JOHN J. HEFFERNAN; steel, the SYRACUSE BRIDGE CO., Syracuse Savings Bank Bldg.; piling, A. PROVO & SON. The Arena proper will be 240 × 127 ft., with a skating floor, 85 × 200 ft. The officers of the company are: Chester H. King, Pres.; James A. Randall, Vice-Pres.; R. S. Burlingam, Secy. and Gen. Mgr.; M. D. Whitford, Treas. These and E. C. Wetherby are also the directors. The cost will be $100,000.

JERSEY CITY, N. J.—Clinton & Russell, Archs., 32 Nassau St., New York, have completed plans for the erection of a passenger station, which will be built at Wilkes St. and the Hudson Boulevard, Jersey City, by the Hudson & Manhattan R. R. Co., 30 Church St., New York. The structure will be of brick and stone, and will cost about $250,000.

ATLANTIC CITY, N. J.—Seymour and Paul A. Davis, Archs., 1600 Chestnut St., Philadelphia, have prepared plans for a 1-story granite bank building for the Atlantic Safe Deposit & Trust Co. It will be 50 × 100 ft. The architects will receive bids. Cost, $75,000.

BRISTOL, PA.—Plans have been completed and bids will soon be received for the construction of a passenger station here for the Pennsylvania R. R. Co. It will be a 2-story structure, of brick, stone and steel, with steam heating. W. H. Cookman, Broad St. Station, Philadelphia, Arch., will receive bids. Cost, $50,000.

PHILADELPHIA, PA.—Plans have been prepared by Hauer & Mowerer, Archs., 31st St. and Columbia Ave., for a home, hospital and orphanage, 400 × 60 ft., with two wings, four stories high, at Granville, for the Knights of Malta. There will be four fireproof structures of brick, iron and stone. Bids will be received some time in the spring. J. H. Hoffman, 1345 Arch St., is interested. The estimated cost of the buildings is $350,000 and the equipment, $100,000.

PHILADELPHIA, PA.—Bids will be received early next year, we are officially advised, by Edwin F. Bertolett, Arch., 32 South Broad St., for the erection of a professional office building, 22 × 118 ft., with an iron frame, of stone and brick construction. Dr. A. W. Jarman, is the owner. Noted on Nov. 17.

Plans have been prepared by John T. Windrim, Arch., Commonwealth Bldg., for extensive alterations to the building of the First National Bank, 315 Chestnut St. The alterations will cost about $60,000.

The contract to erect a home at 29th St. and Allegheny Ave., for the Catholic Home for Destitute Children, care of the Rt. Rev. E. Prendergast, 1429 North Eleventh St., has been awarded to JACOB MYERS & SONS, Witherspoon Bldg. It will be a 3-story stone structure, 350 × 150 ft. E. F. Durang & Son, 1200 Chestnut St., are Archs. Cost, $200,000.

Permits were issued recently to the ALLEGHENY IMPROVEMENT CO. for the erection of 64 2-story brick dwellings on the west and east sides of Bailey St., north of Cambria St. Each house will be 15 × 30 ft. The Lehigh Realty Co. are the owners, and the estimated cost of the work is $96,000.

WILKINSBURG, PA.—Property has been purchased on Wood St., by Richard A. Rowland, House Bldg., Pittsburg, for the purpose of erecting a theater, to cost $60,000. The plot is 84 × 132 ft. and cost $116,000.

*CHAMBERSBURG, PA.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., has awarded contract for the construction of a post-office at Chambersburg, to AMBROSE B. STANNARD, St. James Bldg., New York, at $60,050; time, Dec. 1, 1911. Bids were received on Nov. 14. Noted last week.

PHILADELPHIA, PA.—JOHN STAFFORD has been granted a permit for the $300,000 annex to the St. James' Hotel, which he will erect at 1226-28 Walnut St. The plans provide for a 13-story fireproof structure, with exterior walls of brick and terra cotta. The dimensions will be 47.2 × 107 ft. Frank Seeberger is the Arch.

Bids will be received soon for the erection of a 5-story concrete building, 78.6 × 105.10 ft., by Ballinger & Perratt, Archs., 1211 Arch St. Douredoure Bros. are the owners. Estimated cost, $90,000.

BALTIMORE, MD.—Bids will be received on Dec. 2 by Frank & Kavanagh, Archs., 328 North Charles St., for the erection of a 6-story warehouse, 38 × 100 ft., for Hecht Bros. & Co. Cost, $40,000.

BALTIMORE, MD.—A warehouse will be built by E. J. Ellinger on the site of the old Regester plant, at the southeast corner of Holliday and Saratoga Sts. The plans, which are being prepared by Paul Emmart, Arch., 210 West Fayette St., call for a 4-story brick structure to cost about $50,000. It will be 139 × 97 ft. and fireproof throughout.

The vacant plot of ground fronting on Lee, Howard, Hill and Sharp Sts. is to be improved by the erection of an immense steel and brick produce and freight building for the Baltimore & Ohio R. R. Co. M. A. Long, the railroad's Architect, is now preparing the drawings and specifications. The proposed structure, which will be one story high, will be 340 × 155 ft. The foundation will be of reinforced concrete, while the roofing will be of slag. The framework will be of wrought steel, with brick and stone basing. The railroad, upon completion of the building, will run several spur tracks directly into it, to facilitate the loading and unloading of produce and freight.

Plans are being prepared by Otto G. Simonson, Arch., American Bldg., Baltimore, and W. H. McElfatrick, Arch., 701 Seventh Ave., New York, for the erection of the proposed Empire Theater, on Fayette St., near Eutaw St. The structure will be of French style of architecture, with a seating capacity of about 2,000. Bids will be received some time in January. The Empire Theater Co. is the owner. George W. Rife, is Pres. The cost is estimated at $150,000.

WASHINGTON, D. C.—Milburn, Heister & Co., Archs., Home Life Bldg., are preparing plans and specifications for two double apartments for J. L. Kolb. The contract will be awarded as soon as plans are completed.

*WASHINGTON, D. C.—Bids will be received by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, until 3 p. m., Jan. 26, for the construction (including roof and ground surface drainage system), of the new building for the Bureau of Engraving and Printing at Washington.

FAIRMONT, W. VA.—The Fairmont Mining Machine Co. on Nov. 23 awarded the contract for the erection of a new warehouse to the McCLINTIC-MARSHALL CONSTRUCTION CO., Park Bldg., Pittsburg, Pa. The building is of reinforced steel concrete construction, two stories in height and will afford a floor space of 15,000 sq. ft.

SAVANNAH, GA.—We are officially advised that the contract to erect a bank building here for the Savannah Bank & Trust Co., has been awarded to the CHARLES McCAUL CO., Tenth and Sansom Sts., Philadelphia, Pa. It will be 15 stories high, of brick, steel and concrete and 60 × 92 ft. The cost will be about $400,000. Mowbray & Uffinger, 56 Liberty St., New York, are the Archs.

PADUCAH, KY.—It is reported that the Wiedemann Brewing Co., of Newport, together with Frank Rieke, of Paducah, will erect a 10-story hotel at Sixth St. and Broadway.

YOUNGSTOWN, OHIO.—MacClure & Spahr, Archs., Keystone Block Bldg., Pittsburg, Pa., have completed plans and are ready to receive bids for the erection of an office building and several plant buildings which are to be built by the Republic Iron & Steel Co., at Youngstown. Estimated cost, $80,000.

LEBANON, IND.—J. W. White, of Thorntown, Ind., has purchased property in this city on which he plans to build a 3-story brick and stone business block. Bids will be received as soon as plans are completed.

PERU, IND.—The Home Telephone Co. is preparing to ask for bids for the construction of an exchange building on Broadway. When completed, the company will install a new automatic switchboard. Joseph Bergman, J. E. Yarling and W. A. Huff are Dirs.

EVANSVILLE, IND.—The Trustees of the Southern Indiana Hospital for the Insane are preparing to let contract for the erection of a hospital and two cottages. The legislative appropriation of $80,000 will probably be increased by $30,000.

MARQUETTE, MICH.—The Masonic Order of Marquette contemplates the erection of a 3-story Temple in the near future, at a cost of $75,000.

MANISTEE, MICH.—The Masons of Manistee are contemplating a Temple to be erected soon. F. T. Hoghes, Chn., 393 River St. Cost, $50,000.

PONTIAC, MICH.—James Knox Taylor, Superv. Arch., Treasury Dept., Washington, has awarded contract for the construction of a post-office at Pontiac, to BARNES BROS., of Greenville, Ill., at $64,610; time, Feb. 1, 1912. Bids were received on Nov. 14 and noted on Nov. 17.

DETROIT, MICH.—W. E. N. Hunter, Chamber of Commerce Bldg., is preparing plans for a 2½-story fireproof children's shelter home for the Society for the Prevention of Cruelty to Children. J. W. Jayne, Breitmeyer Bldg., is Secy. It will cost $50,000.

C. Howard Crane, Ford Bldg., will receive estimates about Jan. 1 for a theater, 126 × 85 ft., for the Casino Co., A Caille, Pres., 34 Farmer St., to be constructed of stock brick, bedford stone, terra cotta, with a composition roof, galvanized iron skylight and cornice, structural iron, hardwood finish floors and electric fixtures. Cost, $100,000.

DETROIT, MICH.—Malcomson & Higginbotham, Moffat Bldg., Detroit, and Ed. F. Stevens, 9 Park St., Boston, Mass., Consult. Archs., will soon receive estimates on the $1,000,000 addition to Harper Hospital. Dr. F. E. Moulder, Supt., John R. and Martin Place, Detroit. The building is to be of fireproof construction, six stories and basement, 47 × 200 ft.; also a service building, two stories and basement, 150 × 50 ft.

GRAND RAPIDS, MICH.—The Y. M. C. A. of Grand Rapids is having plans prepared for a rescue home to cost $40,000. The building will mature early next year.

ROCK ISLAND, ILL.—Bids were received as follows on Nov. 23, by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., for the construction of a post-office at Rock Island: John Volk & Co., Rock Island, $146,836; General Construction Co., Milwaukee, Wis., $127,600; Northern Construction Co., Milwaukee, Wis, $138,000; Harrison Bros., Chicago, $150,547.

MILWAUKEE, WIS.—The bids received on Nov. 18 by H. E. Briggs, Comr. of Public Works, for the erection of a fire engine house at Martin St. and Broadway, have been rejected, as being excessive. New bids will soon be asked for. Estimated cost, $95,000.

MADISON, WIS.—The State Board of Control is receiving proposals for a site for a new home for the feeble minded. The site is to contain between 600 and 1,000 acres and the buildings, which will later be erected, will cost approximately $1,000,000.

C. J. Kirch has announced that he will erect an 8-story hotel, with 200 rooms, to be known as the New Metropole. It will be of reinforced concrete construction and strictly fireproof throughout. Cost, $150,000.

SIOUX CITY, IOWA.—Plans are being prepared by W. W. Beach, Arch., United Bank Bldg., for the erection of a hotel for the Western Iowa Co. It will be located at the southwest corner of Fifth and Jackson Sts., on a lot 150 × 150 ft. N. S. Bruner is local representative. Estimated cost, $250,000.

SIOUX CITY, IOWA.—It is the intention of Robert I. Leader, owner of the Howard Hotel, to make extensive improvements. An annex, four stories high, will cover the ground, 50 × 150 ft., lying north of the hotel. A fourth story will be added to the present structure. Estimated cost, $125,000.

Property at 308 and 310 Nebraska St., has been purchased by Herman Kleeblatt, for the purpose of erecting a brick building. Construction will be started next spring.

ST. LOUIS, MO.—The Heinrich Realty Co. plans the construction of a terminal building on the north side of Duncan Ave., near Vandeventer Ave. The building will have a frontage of 150 ft. on Duncan and 180 ft. along the railroad track. The foundations will be laid to carry a 4-story building, but the bids call only for two stories. The other two stories will be built in the spring.

OKLAHOMA CITY, OKLA.—The Oklahoma Electric Terminal Co., Oklahoma City, will construct buildings of reinforced concrete and plans an ultimate expenditure of $500,000.

COLORADO SPRINGS, COLO.—Plans have been completed by McLaren & Thomas, Archs., Hagerman Bldg., for the erection of the main building of the sanitorium for the Modern Woodmen of America, at Colorado Springs. Construction work will start about Jan. 1. Cost, $100,000.

PORTLAND, ORE.—Claussen & Claussen Archs., Board of Trade Building, are preparing plans and specifications for a 4-story brick apartment house to be built on Lucretia St., near Everett, by Mrs. A. M. Williams, of Seattle, Wash., to cost about $50,000. Plans will be ready for estimating about Dec. 5.

A stone structure costing about $75,000 will be built on the block bounded by East 16th, East 17th, Hancock and Schuyler Sts. by the Westminster Presbyterian Church. The block is worth $25,000. S. P. Lockwood and H. R. Albee, are members of the Board of Trustees. The Rev. Henry Marcotte is Pastor.

EUREKA, CAL.—Ackerman & Ries, Archs., are preparing plans for a $100,000 fireproof high school to be erected here.

LOS ANGELES, CAL.—The Broadway Investment Co. has applied for a permit for the erection of a 10-story reinforced concrete office building at Second St. and Broadway, to cost $200,000. Paul C. Pape, Pacific Electric Bldg., is Arch. George W. Harding, Citizens' National Bank, Engr.

A. Barman, 2047 La Salle St., was the lowest bidder for the erection of a 5-story and basement concrete warehouse, at Sixth and Mill Sts., for the Los Angeles Public Market Co. The building will be 168 × 142 ft. and will cost $135,000. The construction will be a girderless system of reinforced concrete with concrete floors, stairways and roof, with white Medusa cement exterior. Charles E. Shuttack, 318 Mason Bldg., is the Arch. T. G. Camp, Engr.

LOS ANGELES, CAL.—WEYMOUTH CROWELL, Story Bldg., has been awarded the general contract for the erection of the 12-story and basement building at Seventh and Olive Sts., for the Los Angeles Athletic Club. It will be 155 × 143 ft. There will be a power plant and storage rooms in the basement. The construction will be Class A, steel and brick, with pressed brick exterior and artificial stone trim. There will be plate glass windows, tile, oak and maple floors, marble, oak and pine wainscoting, ornamental iron work, four elevators, galvanized-iron cornice and composition roof. The plunge will be constructed of steel and lined with tile. The contracts for the structural steel and elevators have been awarded to the LLEWELLYN IRON WORKS, at $170,000 and $12,750, respectively. C. H. KUBACH has the contract for the foundations at $17,250. The cost of the building as given in the application for a permit is $650,000. Parkinson & Bergstrom, Security Bldg., are the Archs.

OAKLAND, CAL.—Plans have been completed and work will start in January on the railway station at 16th St., for the Southern Pacific Ry. It will be 278 ft. long. W. R. Scott, of San Francisco, is Asst. Gen. Mgr. Cost, $350,000.

PLACERVILLE, CAL.—The citizens of El Dorado County recently voted on a bond issue for the construction of a court-house to cost $125,000.

SAN DIEGO, CAL.—The F. O. ENGSTROM CO., Fifth and Seaton Sts., Los Angeles, has been awarded the contract for the erection of a 6-story theater and office building, to be erected for John D. Spreckels, of San Francisco, at San Diego. The building will cost $400,000. Harrison Albright, Arch., Laughlin Bldg., Los Angeles, prepared the plans.

SAN DIEGO, CAL.—E. M. Capps, City Engr., is preparing plans for a municipal jail, it is stated.

MONROVIA, CAL.—Bids will be received by the City School District, until Dec. 15, for the construction of three schools, to include a high school, grammar school and a manual training, 85 × 200 ft. Fred S. Whitcomb is one of the Trustees. Allison & Allison, of Los Angeles, are the Archs. Cost, $95,000.

SAN FRANCISCO, CAL.—Plans have been completed by George Colmesnil, Acting City Arch., for the construction of a girls' high school at Scott, Geary and O'Farrell Sts. Contracts will be awarded some time this month. It will be 264 × 277 × 147 ft., of buff brick and terra cotta, with a steel frame. Estimated cost, $350,000.

ST. HENRI, QUE.—Bids will be received until 4 p. m., Dec. 6, by R. C. Desrochers, Secy., Public Wks. Dept., Ottawa, Ont., for alterations and additions to the post-office building at St. Henri (Montreal). Plans at office of H. N. Lymburner, Supt., Post Office Bldg., Montreal.

MONTREAL, QUE.—At a recent meeting of the St. Andrew's Curling Club, it was decided that a new club-house be built on a site purchased on St. Martin St. W. M. Kearns is Pres.

RIGAUD, QUE.—Bids will be received until Dec. 5, by R. C. Desrochers, Secy. Dept. of Public Works, Ottawa, Ont., for the construction of a public building at Rigaud.

TORONTO, ONT.—Plans have been completed for the erection of a 10-story fireproof structure for Grace Hospital. The proposed building will be of steel, concrete and terra cotta. Dr. Bruce L. Riordan is in charge. Estimated cost, $175,000.

PORT ARTHUR, ONT.—Bids will be received until Dec. 12 by Father Grenier for the erection of a church here.

WINNIPEG, MAN.—George Teeter, Arch., of Winnipeg, has been awarded first prize in the competition for plans for the tubercular hospital to cost $75,000. C. W. U. Chivers and William Bruce, both of Winnipeg, were second and third, respectively. Work on the hospital will start early in the spring.

The J. H. Ashdown Hardware Co. has decided to double the capacity of its present distributing warehouse at a cost of approximately $150,000.

ALERT BAY, B. C.—Bids will be received until Dec. 30, by J. D. McLean, Secy. Dept. of Indian Affairs, Ottawa, Ont., for all trades necessary for the erection of a girls' home here.

VANCOUVER, B. C.—A permit has been issued for an apartment house, at the southeast corner of Bute and Comox Sts., by J. V. and E. G. Lightheart. The estimated cost of the block is $250,000. Among the various innovations for the new block will be an incinerator plant for the use of the tenants, disappearing furniture facilities, vacuum cleaning, gymnasium, etc.

MOOSEJAW, SASK.—H. GILES, of this city, has received the contract for excavating for the proposed university buildings.

WATER SUPPLY—IRRIGATION.

*(*Denotes that this work is advertised in Engineering News.)*

FORT GREBLE, R. I.—The contract for the construction of a 1,000,000-gallon reinforced concrete reservoir here has been awarded to the SIMPSON BROS. CORPORATION, 166 Devonshire St., Boston, at $28,028. List of bidders noted on Nov. 24.

BAY SHORE (L. I.), N. Y.—The Great South Bay Water Co., Bay Shore, has awarded contract for the proposed pumping station at Bay Shore to JOHN THATCHER & SONS, Brooklyn. The plant at Bay Shore is being improved, the improvements including a new pumping station, new pumping engines and boilers, about 1,200 tons of c.-i. pipe, hydrants, valves, additional driven wells and two water tanks, 50 ft. high and 25 ft. diameter, on towers 90 ft. high. The contracts for all of the work, except standpipes, has been awarded.

SYRACUSE, N. Y.—The city will spend approximately $50,000 next year for the extension of water mains for increasing the area of service in the city, according to estimates made on Nov. 18 by George H. Beebe, Supt. Bureau of Water.

*ORISKANY FALLS, N. Y.—Bids will be received by the Board of Trustees until 2 p. m., Dec. 22, for the construction of a gravity system of waterworks, consisting of a 13,000,000-gallon reservoir, concrete dam, approximately 25,000 ft. of 12, 10, 8 and 6-inch pipe, 37 hydrants, 36 valves and all accessories, material, tools and labor necessary to complete the system. Bids will be received for the whole work only. Plans may be seen at the office of the board, and specifications obtained from Dr. G. J. Pollard, Clk., after Dec. 12. A. M. Scripture is Engr., New Hartford, N. Y.

SILVER SPRINGS, N. Y.—The village has voted to issue $14,000 of bonds for sinking wells and installing a pumping station.

ANGOLA, N. Y.—We are officially advised that Witmer & Brown, Hydraulic and Sanitary Engrs., Chapin Block, Buffalo, N. Y., have been engaged to design and superintend the construction of a water-works system here. Plans and specifications will not be ready until Dec. 15.

ALBION, N. Y.—We are officially advised that the city has engaged Witmer & Brown, Chapin Block, Buffalo, N. Y., to design and superintend the construction of a water-works system. Plans and specifications will not be ready until Dec. 15.

BUFFALO, N. Y.—The Board of Councilmen has postponed the award of contract for the construction of two tunnels under the Erie Canal at Porter Ave. and Jersey St., connecting with the new pumping station. The tunnels are each 220 ft. long; 10 × 18 ft., concrete lined; and 35 ft. deep, with end shafts 10 × 18 ft. Estimated cost, $103,000. Work is to be done during closed canal season.

PLAINFIELD, N. J.—James A. Fuertes, Consulting Engr., has recommended to the Council the construction of a municipal water plant. A. J. Gavett is City Engr.

SCHUYLKILL HAVEN, PA.—T. Chalkley Hatton, Consulting Engr., Wilmington, Del., is preparing plans for the construction of a new water-supply plant here. Contracts will probably be let after the first of the year. Estimated cost, $50,000.

SAGERTOWN, PA.—HENRY KNIPPLE, Olean, N. Y., has been awarded the contract for laying the pipe and constructing the reservoir in connection with the water-works system here. The U. S. CAST IRON PIPE & FOUNDRY CO., Buffalo, has the contract for pipe and special castings, and the KENNEDY VALVE MFG. CO., Elmira, the contract for hydrants and valves.

KIRKWOOD (Atlanta post-office), GA.—The city has engaged Hazlehurst & Anderson, Candler Bldg., Atlanta, Ga., as engineers in charge of the construction of water-works and sewerage systems. The water mains are to be from 6 to 10 in. in diameter. PERRY ANDREWS, 367 North Jackson St., Atlanta, has been awarded the contract to drill an artesian well.

ATLANTA, GA.—Water bonds for $300,000 were sold on Nov. 15 by the city. R. G. Clayton is City Engr.

TAMPA, FLA.—The Fire Committee of the City Council will make extensions to water-works for fire protection. G. P. Sullivan is City Engr.

ALBERTVILLE, ALA.—The city has awarded the contract to H. E. TAYLOR, Atlanta, Ga., for constructing the water-works system. Bonds for $25,000 have been voted.

CINCINNATI, OHIO.—The contract for furnishing pipe for the Delhi water connection has been awarded to the U. S. CAST IRON PIPE & FOUNDRY CO., Chicago, Ill., at $42,369, and to FRANK BURNS for laying pipe at $24,976.

CARTHAGE, OHIO.—Bids will be received by the Board of Public Affairs until noon Dec. 17, for furnishing all materials and constructing the following work for the Carthage water-works: One 60-brake HP. horizontal gas driving engine; one vertical triplex single-acting plunger pump, 350 gals. per min. capacity, against a pressure of 90 lbs. per sq. in.; one 80-brake HP. driving engine; one horizontal straight-line, single-stage, belt-driven air compressor of 520 cu. ft. free air capacity per min., against a pressure of 60 lbs. per sq. in. Plans and specifications can be examined at the office of the Clerk of the Board of Public Affairs, Carthage, or of the office of John W. Hill & Sons, 506 First National Bank Bldg., Cincinnati, Ohio., Engrs.

CLEVELAND, OHIO.—Bids will be received until noon, Dec. 12, by the Director of Public Service for furnishing and erecting in the engine house at the Kirtland St. pumping station two vertical triple-expansion pumping engines, with a capacity of 25,000,000 gallons of water each in 24 hours. Specifications can be obtained from Leslie C. Smith, Supt. Water Dept.

BELLAIRE, OHIO.—Bids will be received by the Director of Public Service until noon, Dec. 5, for furnishing f. o. b. cars Bellaire, c.-i. water pipe, T's, sleeves, crosses and elbows. R. E. Crow is Clk. Bd. Pub. Ser.

ATHENS, OHIO.—The Board of Trustees of the Athens State Hospital for the Insane, Dr. Fordyce, Supt., has awarded the contract to the KENNICOTT CO., Chicago Heights, Ill., for the construction of a new water supply system at the hospital, at $12,047.

LIMA, OHIO.—The city is considering the construction of a filtering plant.

INDIANAPOLIS, IND.—The Indianapolis Water Co. has awarded contract to the DE LAVAL STEAM TURBINE CO., Trenton, N. J., for a 10,000,000-gallon steam turbine centrifugal pump and to the HEINECKE CO., 147 Fourth Ave., New York, for a brick chimney, 10 × 250 ft.

EVANSVILLE, IND.—The Water Works Board has under consideration the letting of a contract for the improvement of the filter plant and the purchase of a pump to pump water from the river into the filter plant. Estimated cost, $40,000.

HARBOR SPRINGS, MICH.—The city is planning for the construction of a water-works plant this winter. Bonds for $45,000 have been sold and plans for construction are being pushed as rapidly as possible.

GRAND RAPIDS, MICH.—Bids will be received by the Board of Public Works, until 8 p. m., Jan. 19, for the construction of buildings, filters and equipment for the city of Grand Rapids, according to the plans and specifications on file at the office of the Board, or at the office of Hering & Fuller, Consult. Engrs., 170 Broadway, New York.

WHEATON, ILL.—Plans for the construction of a new water supply and pumping system are being prepared by J. B. Ryder, New York. It is proposed to include a 150,000-gallon reservoir, a 75-ft. pump well, well pump and high-pressure distribution pump. An additional standpipe is proposed, and the pumping plant is to comprise a gas producer and two gas eveners. For a supply of 750,000 gallons daily, the cost of steam plant is estimated at $7,500 to $8,800. With the producer plant the cost would be about $12,340 or $13,500, if the present standpipe is raised 45 ft. to give a higher pressure. A. L. Webster is City Engr.

CHICAGO, ILL.—The following are the lowest bidders for furnishing and erecting at the Roseland pumping station, 104th St. and Stewart Ave., four horizontal water-tube boilers, each to develop 300 HP.: Kroeschel Bros., 440 West Erie St., $14,200; Edgemoor Iron Co., $14,640; J. G. O'Neil, 217 La Salle St., $14,997.

CHICAGO, ILL.—The city will install auxiliary electrically operated centrifugal pumps at the 22d St. pumping station. B. J. Mullaney is Com. Pub. Wks. John Ericson is City Engr.

CARROLLTON, ILL.—The contract which was to have been awarded by the Commissioners of the Eldred Drainage and Levee District, Carrollton, on Nov. 11, for a pumping plant and frame dwelling for engineer, has been postponed until spring, when new bids will be asked. The Harman Engineering Co[illegible] Fredonia Ave., Peoria, Ill., is in charge [illegible] the engineering work.

CARROLLVILLE (Otjen pos[illegible]), WIS. —The United States Glue Co[illegible] Carrollville, has awarded the contract to [illegible] WAY-LAND for the construction [illegible] ft. of 6-in. water main and 1,200 ft. [illegible] in. clay pipe sewer, hydrants, etc. E[illegible] cost, $10,000.

STUART, IOWA.—The city [illegible] awarded a contract for the erection of [illegible] tower to the DES MOINES BRIDGE [illegible]N CO., Des Moines, at $5 218. It will [illegible]-gallon capacity, 100-ft. tower, 124 [illegible] the top of the tank.

DULUTH, MINN.—H. H. [illegible]PSON, Duluth, has been awarded [illegible] con-tract by the Board of W[illegible] and Light Commissioners for re[illegible] the intake pipe at the Lakew[illegible] pumping station. Work will comm[illegible] immediately. The contract price will [illegible] from $6,138 to $7,260, the definite am[illegible] to be determined by the amount of rip[illegible] work to be placed.

FORT CROOK, NEB.—Bids will [illegible] received until 11 a. m., Dec. 16, by Capt [illegible] Campbell E. Babcock, Q. M., U. S. A., [illegible] Crook, Neb., for the construction of a r[illegible]ir and well.

GRAND FORKS, N. DAK.—T[illegible] Water-Works Committee of the City Coun[illegible] is considering the construction of a d[illegible] across the Red River, for the purpose of [illegible]ring up a supply of water in the city for [illegible] water-works system during the winter m[illegible]ths. H G. Lykken is City Engr.

HARLOWTON, MONT.—C. M. Thorp, Bozeman, Mont., is preparing plans for the construction of water-works for the city.

TOWNSEND, MONT.—Plans have been prepared by C. M. Thorp, Bozeman, Mont., for the construction of water-works here.

MANHATTAN, MONT.—C. M. Thorp, Bozeman, Mont., is preparing plans for the construction of a water-works system here.

FORT SMITH, ARK.—The city will probably spend $100,000 for improvements to the water plant it will purchase from a private water company here. M. H. Reed is City Engr.

BELTON, TEX.—The city has voted $11,000 of bonds for water-works improvements. A 30 × 70 ft. iron or concrete standpipe will be erected and about 5,000 ft. of 8-in. iron pipe laid. The Fountain-Shaw Engineering Co. is Engr.-in-Charge.

LAMAR, COLO.—The SOUTHWEST CONSTRUCTION CO., Lamar, has been awarded the contract, it is reported, for constructing the Bent-Powers irrigation system, a project to cost about $4,000,000, and irrigate about 100,000 acres in the southern part of Bent County. The work includes a reservoir with a capacity of about 132,000 acre-ft. of water on the Purgatoire River, five miles south of Las Animas. The main canal will be about 126 miles long and run nearly parallel to the Arkansas River, beginning at the Purgatoire River on the west and extending to Wolf Creek, 20 miles east of here. A bond issue of $4,000,000 was voted by the district some time ago. The contract calls for immediate work.

GREELEY, COLO.—The city has awarded the contract for the construction of a new filter basin to cost about $8,000.

LAS CRUCES, N. MEX.—A. M. Patten, Denver, Colo., is preparing to construct a large irrigation project in Lincoln and Chaves Counties. The reservoir will cover 280 acres, and will be located in Bull Gap Canyon, in Lincoln County.

YACOLT, WASH.—The contract for constructing the water system here has been awarded by the City Council to M SCHILLING. The water will be taken from Big Creek Falls, about two miles from the city, where a dam will be erected and a reservoir constructed. Noted on Nov. 24.

TACOMA, WASH.—The Council has passed a resolution providing for the construction of water mains of 6-in., 8-in., 12-in. and 14-in. wooden pipe in Local Improvement District No. 361. F. L. Davis is City Engr.

NORTH YAKIMA, WASH.—The Secretary of The Interior, Washington, D. C., has approved the construction of a new drop in the main Sunnyside Canal and the headworks of the Snipes Mountain lateral, on the Yakima irrigation project, Wash. The old structure was built by the company from which the system was acquired by the government, and is no longer considered safe. The new drop of concrete, which will replace it, will cost about $9,000. The Reclamation Service will do the work by force account.

The Secretary of The Interior has awarded the contract to NELSON RICH, Prosser, Wash., for the construction of about 40 miles of laterals in connection with the Tieton unit of the Yakima irrigation project, Wash., at $116,070. The work involves the excavation of about 230,000 cu, yds. of material.

ELLENSBURG, WASH.—G. N. Miller, City Engr., has prepared estimates and a report on the proposed Lake Cle Elum water system. About 15 miles of pipe from 4 to 14 ins. in diameter will be laid. Estimated cost of the system, $250,000.

PORT ANGELES, WASH.—We are officially advised that preliminary surveys are being made by E. R. Gehrke, Engr., for the construction of new water-works, the source of the supply to be Olympic Hot Springs, about 23 miles from the city. Estimated cost, $60,000. C. E. Shields is City Clk. Noted on Nov. 10.

*NORTH YAKIMA, WASH.—The Secretary of the Interior has awarded contracts for constructing canals and structures on the Prosser Division of the Sunnyside unit, Yakima irrigation project, Wash., to ORRIN H. STRATTON, Spokane, Wash., for one 180-ft. steel bridge span complete, in place; two 132-ft. spans, and one [illegible]-ft. span in place, to the PACIFIC TANK & PIPE CO., Portland, Ore., for furnishing and placing wood-stave pipe, bridge floor and blow-off.

at $18,[illegible]62; to BERNARD BROS., Prosser, Wash., for trench for pipe, and canal excavation, at $18,830. The work involves the excavation of 35,740 cu. yds. of material and 1[illegible] cu. yds. of blanketing. The work of construction of the diversion dam and steel flumes will be performed by force account. Bids were opened on Nov. 1.

PORT TOWNSEND, WASH.—Bids are asked until 4 p. m., Dec. 20, by the city, for furnishing material and performing the labor of constructing and laying water mains for extensions of the city water system to Du[illegible] Addition, consisting of approximately [illegible]0 ft. of 4-in. wood-stave pipe and 1,300 ft. of 1¼-in. pipe, with all necessary fittings.

PORTLAND, ORE.—Bids will be received by the Water Board until 4 p. m., Dec. 13, for furnishing 200 fire hydrants, f. o. b. cars Portland. Specifications and form can be obtained at the office of D. D. Clarke, Engr. Water Bd.

SILVERTON, ORE.—The city is considering the construction of a gravity water system. C. H. Green, Spokane, Wash., is Engr.

NORTH BEND, ORE.—The city has had plans prepared for the construction of a water-works system.

COLUSA, CAL.—The City Engineer is preparing new plans for the construction of a water-works and sewer system.

SACRAMENTO, CAL.—On Nov. 16 the city voted against the issue of $666,000 of bonds for the construction of a filtration plant.

PASADENA, CAL.—Allin Bros., Consult. Engrs., 6[illegible] North Raymond Ave., Pasadena, have prepared plans for the following work: For relining and covering the Pasadena Land & Water Co.'s reservoir on Orange Grove Ave. and removing an earthen dam between the two sections, the reconstructed reservoir to have a capacity of 8,000,000 gallons; for reconstructing and cement lining the reservoir of the La Habra Land & Water Co. at Newport Beach; for covering and cement lining a reservoir 125 × 270 ft. and 16 ft. deep for the Rubio Canyon Land & Water Co.

*STOCKTON, CAL.—The attention of contractors and financiers is called to the opportunity which will soon be open to bid on the construction of irrigation work near Stockton. The irrigation systems to be built are those of the South San Jouquin Irrigation District and the Oakdale Irrigation District. Estimated cost, $3,000,000. Edwin Duryea, Jr., is Ch. Engr., South San Joaquin Irrigation District, 1315 Humboldt Bank Bldg., San Francisco, Cal. For details see advertisement in this issue.

SAN BERNARDINO, CAL.—The Board of County Supervisors have ordered that bids be asked for the completion of the irrigation work in the Mission Storm Water District. Ditches, culverts and sewers will be constructed. Plans are on file in the office of the County Surveyor.

SAN BERNARDINO, CAL.—W. T. Brown, City Engr., has been instructed by the Water Commission to prepare plans and specifications for the construction of a water storage reservoir to supplement the city's water supply.

MODESTO, CAL.—Bids were received by Charles S. Abbott, Secy. Bd. of Directors of the Modesto Irrigation District, on Nov. 11, for the construction of hydraulic fills at the sites of Mill Gulch flume, flume "E" and lower Dominici flume. All bids were rejected, and the Board of Directors will do the work under its own supervision and superintendence. Estimated cost, $15,000; of machinery, $3,000. A. Griffin is Design. Engr.

TEMESCAL ,(Oakland post-office), CAL.—The Temescal Water Co. will construct a new pipe line from Temescal to Corona. It will be eight miles long and constructed of reinforced concrete. Estimated cost, $60,000. H. R. Chase is Mgr.

VALLEJO, CAL.—Bonds for $90,000 for the construction of improvements to the municipal water system were sold on Nov. 16.

TRACY, CAL.—F. C. Roberts, Consult. Engr., 461 Market St., San Francisco, has estimated the cost of the construction of a water system here at $30,000.

LAYTON, UTAH.—The city will construct a water-works system.

SOURIS, MAN.—C. R. Heath, City Engr., will receive bids until Feb. 1 for 425 tons of c.-i. water pipes, approximately 31,000 ft. of vitrified sewer pipe and other special and supplies necessary for the installation of a complete water-works and sewerage system.

SEWERS.

(Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Bids will be received until Dec. 5 by L. K. Rourke, Supt. of Streets for the construction of sewers in Norfolk, Arbutus, Dyer and Ufford Sts., Dorchester District.

Bids will be received until Dec. 6 by Louis L. K. Rourke, Supt. of Streets, for the installation of sewers in Mallon Road, Dorchester District.

Bids will be received until Dec. 5 by Louis K. Rourke, Supt. of Streets, for one sewage pump for pumping station, Calf Pasture.

Bids will be received until Dec. 1 by Louis K. Rourke, Supt. of Streets, for the construction of sewers in Loret' St. and Malvern Road, West Roxbury District.

Bids will be received until Dec. 2 by L. K. Rourke, Supt. of Streets, for the construction of surface drains and sewers in Western Ave., Brighton District, and Clifton St., in West Roxbury District.

ANSONIA, CONN.—The contract for the construction of section D of the Ansonia sewer system has been awarded to O'NEIL & NERO at $15,162.

MIDDLETOWN, CONN.—We are advised that the item of Nov. 17 to the effect that a carrier sewer would be constructed in the Naugatuck River is erroneous.

WATERBURY, CONN.—The Board of Aldermen have voted to ask the legislature for permission to issue $100,000 of sewer bonds for the construction of the connecting link in the main carrier sewer in the Naugatuck River, between the Washington Ave. bridge and the Connecticut Co.'s dam at the West End, a distance of about one mile. R. A. Carins is City Engr.

PORT CHESTER, N. Y.—The construction of sewer system is under consideration by the Trustees of Port Chester.

LONG ISLAND, L. I., N. Y.—Bids will be received by Lawrence Gresser, Pres. of Boro. of Queens, until Dec. 1 for construction of a storm water drain and appurtenances in Broadway, from Little Neck Road to about 950 ft. east.

NEW YORK, N. Y.—Bids will be received by the Pres. of the Boro. of Manhattan, Room 14, City Hall, until 2 p. m., Dec. 7, for furnishing all the labor and materials required for extension and repairs to sewer and appurtenances at 142d St., North River.

A petition will be submitted to the Board of Local Improvements on Dec. 6 for the construction of a pipe sewer in West 218th St. from Broadway to the newly-established break in grade about 475 ft. west of Broadway. Julian B. Beaty is Secy.

NEW YORK, N. Y.—Bids will be received by the Dept. of Parks, 5th Ave. and 64th St., until 3 p. m., Dec. 1, for furnishing and delivering 600 lin. ft. 15-in. vitrified sewer pipe for parks, in the Boro. of the Bronx. Michael J. Kennedy is Comr. of Parks.

NEW YOFK, N. Y.—Bids will be received by Alfred E. Steers, Pres. of the Boro. of Brooklyn, until 11 a. m., Dec. 14, for furnishing and delivering all the labor and materials required for the construction of a sewer in 16th Ave., between Bath and Benson Aves., in the Boro. of Brooklyn; also for furnishing and delivering all the labor and materials required for the construction of a sewer in 13th Ave., from 56th St. to 57th St. Plans and specifications may be seen at the Bureau of Sewers, 215 Montague St., Brooklyn.

NEW YORK, N. Y.—Bids will be received by Cyrus C. Miller, Pres. of the Boro. of the Bronx, until 11 a. m., Dec. 13, for the construction of a sewer and appurtenances in Westchester Ave., between Zerega Ave. and Westchester Square; Westchester Square, between Westchester Ave. and Walker Ave.; also a sewer and appurtenances in East 236th St., between Katonah Ave. and Martha Ave., and a sewer and appurtenances in Simpson St., between East 167th St. and a point about 251 ft. southerly therefrom, in the Boro. of Bronx.

ALBANY, N. Y.—Bids received by C. V. Collins, Supt. State Prisons, on Nov. 28 for construction of sewage disposal plant at the State Prison at Auburn, N. Y., were as follows: Darrow & Sons, Canandaigua, N. Y., for complete work, $11,184.56; for work outside prison, $4,797.30; J. Brayter, Auburn, N. Y., for work outside prison, $5,500. F. B. Ware is State Arch.

ENGLEWOOD, N. J.—The construction of a sewage disposal plant is being considered by municipalities in the Overpeck Valley. A. C. Johnson is interested.

KEYPORT, N. J.—The following bids have been received for the construction of a sewer and sewage disposal: Harrison Const. Co., Newark, N. J., $68,463; Jersey Paving Corporation, Newark, N. J., $72,374; United Paving Co., Atlantic City, N. J., $72,758; Michael A. Dody, Brooklyn, N. Y., $73,799; Ludwig Batt, South Orange, N. J., $74,126; Johann Jensen, Perth Amboy, $77,043; D. M. Rosser, Wilkesbarre, Pa., $80,193; J. B. O'Rouke, Boston, N. J., $88,261; Field, Barker & Underwood, Philadelphia, Pa., $89,036; P. J. Monohan, South Amboy, N. J., $98,603; Leo E. Kelly, $106,647.

VALLEY CAMP, PA.—Chester & Fleming, Consult. Engrs., Pittsburg, Pa., have been employed by Valley Camp to prepare plans for remodeling the existing sewer system and installing a sewage disposal plant.

HAMILTON, MD.—The installation of a sewer is being promoted by William McCallister & Sons, 221 West Baltimore St., for Hamilton, Lauraville and Evergreen Lawn. The estimated cost for Hamilton is $28,000, and for Evergreen and Lauraville, $17,000.

BLACK MOUNTAIN, N. C.—The Blue Ridge Association contemplates the construction of a sewerage system. F. C. Abbott is Secy-Treas.

KIRKWOOD, GA. (P. O. Atlanta.)—Hazlehurst & Anderson, 532 Candler Bldg., Atlanta, has been engaged by the city to take charge of the installation of a sewer and water-works system; sewer pipes are to be from 6 to 18 ins.

ST. AUGUSTINE, FLA.—The city will vote Dec. 15 on issuing $100,000 of bonds for the installation of sanitary disposal plant sewerage system. John M. G. Carrera is City Clerk.

*BIRMINGHAM, ALA.—Bids will be received by Maury Nicholson until 11 a. m., Dec. 2, for the construction of certain storm sewer mains and branches thereto. The estimated cost is $300,000.

NEW ORLEANS, LA.—See item under Miscellaneous Contracts: Subsurface drains.

DELAWARE, OHIO.—Ordinances were adopted by the City Council determining to proceed with the construction of sanitary sewers in Liberty St. from Lincoln Ave. to Fountain Ave., and in North Sandusky St. from the end of the present sewer to the Children's Home campus.

CINCINNATI, OHIO.—Bids will be received until Dec. 5 by John J. Wenner, Clk. of the Bd. of Public Service, for the construction of sewers in portions of Harrison Ave. and Fischer Pl.

NORWOOD, OHIO.—The contract has been awarded to JOHN SNYDER for the installation of the Carthage sewer system at $46,310. Other bidders were M. F. Quill, $50,771; H. P. Strack, $47,913, and Ritter & McLarkey, $46,293.

SHELBYVILLE, IND.—City Clerk Webb has been instructed to readvertise for bids for the construction of a sewer system in Shelbyville. Estimated cost, $46,405.

EATON RAPIDS, MICH.—BERT FRIEVER has been awarded the contract for the construction of 420 rods of the Wyatt drain in Brookfield.

TRAVERSE CITY, MICH.—T. H. Gillis, City Hall, Traverse City, Mich., is preparing plans for a sewerage disposal plant for the City of Traverse.

PLAINFIELD, ILL.—We are officially advised surveys have been completed by H. D. Hallett, Const. Engr., Aurora, Ill., for the installation of a sewer system in Plainfield, Ill.

CHICAGO, ILL.—The installation of sewers in Albany Ave. are reported to have been ordered by the Board of Local Improvements, and also in Rockwell St. The estimated cost is $810,000.

OSHKOSH, WIS.—The City Council will vote an appropriation to be used in the construction of a storm water sewer system in the Sixth and Thirteenth wards. The work will include a covered culvert and a trunk sewer.

OSKALOOSA, IOWA.—The construction of a sewer has been ordered by the sewer committee of the City Council. The sewer will start along the rear of the properties on Ninth St., just north of C Ave., and runs northwest through a number of vacant lots to Seventh St. The sewer enters Seventh St. at the intersection of E Ave. and then runs north to G Ave. From this point the piping will be placed along G Ave. to Sixth St. and thence to a point where H Ave. and Sixth St. would intersect if opened. At this point the sewer empties into the Sixth St. sewer. The line will be 1,500 ft. in length, and will require about 1,200 ft. of 8-in. pipe and 300 ft. of 10-in. pipe. B. B. Hauser is City Engr.

LEAVENWORTH, KAN.—The lowest bid received for the construction of the Fort Leavenworth sewer system was that of the Steininger Construction Co., St. Louis, at $51,000.

KANSAS CITY, MO.—Plans have been prepared by engineers of the Kansas City Terminal Ry. Co. for the installation of the O. K. Creek sewer between 23d and 24th Sts. Construction work will commence soon.

DALLAS, TEX.—The contract for the construction of a storm sewer in the regions of Swiss Nussbaumer and Peak Sts. has been awarded to C. W. OLCOTT at $14,622. Other bidders were the Dallas Home Improvement Co., $17,748; John C. Underwood, $15,336; George S. Vivian, $15,100; Dallas Lime and Gravel Co., $14,260.50, and F. H. Lancashire, $15,159.40.

EL RENO, OKLA.—Bids will be received by F. T. Stackpole, Cy. Clk., until Dec. 1 for the construction of a sewer in block 3, Morrison 1st addition to El Reno.

DEMING, N. MEX.—City Council has voted to call an election for Jan. 10 to vote on bonds for a complete sewer system. The estimated cost is $38,000.

PALO ALTO, CAL.—The installation of sewer and water pipes on Fulton St. between Hamilton and Forest Aves. has been ordered.

ANAHEIM, CAL.—City Engr. Steward has been instructed by the City Trustees to prepare plans and estimates for a municipal sewer system.

OAKLAND, CAL.—The City Council adopted a resolution directing the City Engr. to prepare plans for installation of sewers in the East Fruitvale sanitary district under provisions of the Vrooman Act.

SANTA PAULA, CAL.—Bids will be received by Robert Stewart, City Clk., until Dec. 5, for the construction of a municipal sewer system. Bonds in the amount of $45,000 have been voted and sold for this work. Plans for same have been prepared by Olmsted & Gillelen, Wright & Callender Bldg., Los Angeles. The approximate quantities are as follows: 34,532 lin. ft. of 6-in. pipe, 829 yds.; 9,812 lin. ft. 8-in. pipe, 203 yds.; 3,331 ft. 10-in. pipe and 87 yds.; 1,775 ft. 12-in. pipe, 20 yds.; 2,750 ft. 15-in. pipe, 38 flush tanks; 77 manholes.

HANFORD, CAL.—Plans for extensions to the sewer system have been adopted by the City Trustees. The estimated cost is $63,000.

COLUSA, CAL.—See item under Water Supply—Irrigation.

ORANGE, CAL.—Bids will be received by the City Trustees until Dec. 15 for furnishing all labor and material necessary for the construction of an outfall sewer. C. W. Hallman is Cy. Clk.

BELLEVILLE, ONT.—Thomas Manley has been recommended for the contract for the construction of the Front St. sewer.

WINNIPEG, MAN.—The contract for sewer pipe and special has been awarded to THOS. JACKSON & SON, Winnipeg, at $10,398. M. Peterson is Secy.

SOURIS, MAN.—See item under Water Supply—Irrigation.

CRESTON, B. C.—The construction of a sewerage system is being considered. S. A. Speers is Secy. of the ratepayers. The estimated cost, $10,000.

GARBAGE DISPOSAL.

(Denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—Louis K. Rourke, Supt. of Sts., has awarded the contract for the removal of snow in District No. 3 to MARK K. LYNCH, at 32 cts.

BRIDGEPORT, CONN.—The Board of Aldermen on Nov. 15 rescinded former garbage contract, it is reported, and awarded a contract for the reduction of garbage to CHARLES F. FISHER, York, Pa., for a period of ten years at $1 per net ton. He is to erect his own plant. D. W. Lynch is City Secy.

WATERBURY, CONN.—The Board of Health is considering the building of a new garbage disposal plant. The residents of Waterville, the suburb near which the present plant is located, are endeavoring to have it removed to a site near the new sewage disposal beds.

NEW YORK, N. Y.—Contracts were awarded on Nov. 23 as follows for the removal of snow and ice during the winter season of 1910-11 in the boroughs of Manhattan, Brooklyn and The Bronx: Borough of Manhattan: District 1, to C. DE MARCO, 3 Rutherford Pl., New York, at 45 cts. per cu. yd.; District No. 2, to same, at 61 cts.; District No. 3, to JOHN J. SHEA, 500 Fifth Ave., New York, at 53 cts.; District No. 4, to same, at 49 cts.; District No. 6, to INDELLI, CONFORTI & SERRITELLA, Harlem River and 125th St., New York, at 54 5/9 cts.; District No. 5, to same, at 55 5/[illegible] cts. Brooklyn: To DONLON CONTRACTING CO., 84 Broadway, Brooklyn, at 45 1/10 cts. The Bronx: to WILKINSON & O'CONNELL, at 29 cts. List of bidders noted on Nov. 24.

PHILADELPHIA, PA.—Edwin H. Vare, Philadelphia, was the only bidder on Nov. 24 for cleaning the streets of the city in 1911, at $1,340,000.

The Penn Reduction Co. was the only bidder for the removal of garbage at $[illegible]10,000.

Two bids were received for the removal of snow, as follows: Edwin H. Vare, for removing snow to manholes, double team, with a capacity of five cubic yards, $1.14 per load; single team, one cu. yd., 30 cts. Same prices were bid in removing snow to the docks. Joseph Irwin, $3.20 per load, five cubic yards; two cubic yards capacity, $2.10; single team, $1.05. Same prices were given for removing snow to the dock.

BENWOOD, W. VA.—This city is considering the erection of a new incinerator plant of at least 50 tons capacity.

EVANSVILLE, IND.—Bids will be received by the Board of Public Works until 10 a. m., Dec. 10, for sweeping and cleaning the brick and asphalt streets in the city, from Jan. 1, 1911, to Jan. 1, 1912. Simon A. Barthelome is Clk. Bd.

STREETS AND ROADS.

EASTHAMPTON, MASS.—The State Highway Commission has filed plans and specifications with the Selectmen for the change in grade at Mt. Tom, where the main road from Holyoke to Northampton crosses the Easthampton branch of the Boston & Maine R. R. According to the plans, the house between the highway and the electric road will be moved and an arched concrete bridge will be built at this point over the railroad for both the electric road and highway. The present wooden structure over the railroad, now used by the electric road, will be abandoned. The estimated cost with land damages is $27,242. Of this amount the town would have to pay 10%, or $2,724. If the change in grade is made, the State will continue the macadam road from Mt. Tom Junction to Northampton.

NEW YORK, N. Y.—Bids will be received by George Cromwell, Pres. Boro. of Richmond, until noon, Dec. 6, for furnishing all the labor and materials required for regulating and grading Curtis Pl., in the First Ward of the Boro. of Richmond, as laid out on the map or plan of the City of New York, and to do such other work as may be necessary to the completion of the work described.

The following bids were received on Nov. 22 by Cyrus C. Miller, Pres., Boro. of the Bronx, for repaving with redressed granite blocks on a concrete foundation the roadway of Southern Boulevard, from Willis Ave. to East 138th St., and setting curbs where necessary: Asphalt Construction Co., Madison Ave. and 137th St., $59,826; Atlanta Contracting Co., 230 East 42d St., $62,654; Lowden & Gallo, $72,734; L. J. Moran, $59,001; J. J. Shea Contracting Co., 500 Fifth Ave., $55,662; Vinton Contracting Co., $67,670.

The following bids were also received at the same time and place for regulating, grading, setting curbstones, flagging the sidewalks, laying crosswalks, building approaches and placing fences in Burke Ave., from White Plains Road to Bronx Boulevard: Julius Dragonetti, $32,294; Perillo & Shield, $17,692; Godwin Construction Co., $26,524; Aneita Construction Co., $24,231; S. Ammenna, $25,884; J. J. Shea Construction Co., $24,981; F. Pistone, $19,506; Roger L. Sullivan, $23,703; Lamura Contracting Co., $21,420; J. B. Malatesta, $23,869.

NEW YORK, N. Y.—Bids will be received by Cyrus C. Miller, Pres., Boro. of Bronx, until 11 a. m., Dec. 13, for regulating, grading, setting curbstone, building approaches, flagging the sidewalks, etc., on various streets in the Boro. of the Bronx.

BUFFALO, N. Y.—The Common Council has ordered the repavement of North Parade Ave., between Fillmore Ave. and East Parade Ave., 30. wide, with German Rock Co.'s standard asphalt, as per plans on file with the Bureau of Engineering, and passed resolutions directing Francis G. Ward, Comr. of Pub. Wks., to prepare plans and specifications for repavement of Seneca St., from Kamper St. to the easterly city line, with different kinds of pavement, including asphalt and brick.

SYRACUSE, N. Y.—We are officially advised that F. J. BAKER has been awarded the contract for paving Catherine St., with Jamestown block, at $20,590. Bids were received on Oct. 31, by John J. Halloran, Secy. Bd. of Contract and Supply.

JEANNETTE, PA.—Bids will be received by the Boro. Council of Jeannette until 8 p. m., Dec. 5, for the grading of Scott Ave., from Fifth St. west to the Borough line. All bids to be by the cubic yard in excavation. George S. Kirk is Secy.

PHILADELPHIA, PA.—The contracts to pave 45 streets, at a total cost of $100,000, have been awarded as follows: The BARBER ASPHALT PAVING CO., Land Title Bldg., for 85, and the FILBERT PAVING & CONSTRUCTION CO., Pennsylvania Bldg., for ten. The bids of the Barber Co. varied from $1.40 to $1.60 per sq. yd., and those of the Filbert Co. from $1.55 to $1.75 per sq. yd. Noted on Nov. 10.

NATRONA, PA.—The Harrisburg Township Commissioners received the following bids on Nov. 22 for paving and sewering in Pine St.: Samuel Gamble, Penn clay brick, $9,200; Ridge Bros., Penn clay brick, $9,951; Brown & Crisman, Mac block brick, $10,895; VAN METER CONTRACTING CO., Mack block brick, $8,175 (awarded contract); Duster Contracting Co., Penn clay brick, $9,157; Swan & Speedy, White Rock brick, $9,657; James Topley & Co., Toronto brick, $9,061; Reinhart Bros., any brand of brick, $9,932.

WILKES-BARRE, PA.—The City Council has awarded the contract for paving Stanton and Empire Sts. to JOHN E. JAMES, of Wilkes-Barre, at $2.19 a sq. yd. Metropolitan brick will be used. The curbing of the streets was also awarded to the same contractor, the prices ranging from 70 to 90 cts. per lin. ft.

BALTIMORE, MD.—Plans for the following state road improvements have been completed and the contracts will be awarded during the first part of January: Baltimore and Annapolis Boulevard, sections between Glenburnie and Severna Park, Anne Arundel County, 24-ft. road, 16-ft. pitch and macadam waterbound edge, about eight miles; two sections of road in Garrett County, from McHenry, north six miles; a section from Allegheny County line, five miles, one section east from Flintstone, five miles; several small sections between Cumberland and Frostberg; five-mile section in Washington County, from Licking Creek west; a 4-mile section from Waldorf, towards Bryantown, Charles County; a 4-mile section from Hunting Creek, in Calvert County, grading, bridging and draining only, and the grading, bridging and draining of a section five miles long, in Anne Arundel County, from Mt. Zion north; a 6-mile section in Prince George County, from Camp Springs, south to the F. V. road, will be paved, as well as a 5-mile section from the District Line to Forestville. Plans for the improvements of the Frederick Turnpike, from Baltimore through Hagerstown and the western counties, are in preparation and the contracts will be awarded immediately following the above mentioned contracts. All the roads except the boulevard will be 24 ft. wide with 14-ft. macadam in the center. The money for the work is now available. John M. Tucker is Chn. of the State Roads Comn.

NORFOLK, VA.—Bids will be received by R. C. Hollyday, Ch. of Bureau of Yards and Docks, Navy Dept., Washington, D. C., until 11 a. m., Dec. 7, for paving at the navy yard at Norfolk.

The contract for paving one square of Duke St., between Freeland Ave. and Twelfth St., has been awarded to U. S SANDS, by the Board of Control. The cost of the paving will be 43 cts. per cu. yd., and for setting the curb 15 cts. per lin. ft. The contract for setting the curbing at 16th St. and Moran Ave., has also been awarded to the same contractor, at 10 cts. per ft., the city to furnish the material for all the work.

BLUEFIELD, W. VA.—The Board of Commissioners, on Nov. 22, awarded the contract for paving three sections, including the alleys between Fifth and Sixth Aves., and extending from Eighth to Eleventh Sts., to the FRESHWATER CO., at $1.52 per sq. yd.

DALTON, GA.—Bids were received on Nov. 22, by William Carroll, City Clk., for 28,000 sq. yds. of paving. The contract was awarded to the WEST CONSTRUCTION CO., of Chattanooga, Tenn., at $56,780.

MACON, GA.—The contract for paving 44 blocks, involving 14 streets, has been awarded to the SOUTHERN PAVING CO., at $2.08 per sq. yd. In all, over $300,000 will be spent for new paving, the amount shared proportionately by the city, property owners, and the Macon Ry. & Light Co.

MONTGOMERY, ALA.—Bids will be received by Robert Tait, City Treas., until noon, Dec. 5, for the paving of the roadway on the following named streets with brick, asphalt, bitulithic, blome granitoid block, mineral rubber, wood block, Hassam granite block or Hassam compressed concrete pavement, together with all necessary grading, curbing, sewers, etc., in connection therewith: Clitheral Ave., from east side of South Hull to west side of Norman Bridge Road; Moulton St., from south side of Church St. to north side of Clayton St.; Clanton Ave., from the east side of Perry St. to the west side of McDonough St., with clay gravel.

WETUMPKA, ALA.—The vote for a bond issue on Nov. 8, for good roads in Elmore County, was favorable. Estimated cost, $170,000. E. W. James is U. S. Highway Engr., Collins, Miss.

GULFPORT, MISS.—We are officially advised that District No. 2, of Harrison County, has authorized a bond issue of $50,000 for roads. Surveys are under way, in charge of Uriel Wright, District Engr. V. A. Griffith, is Chn.

COLLINS, MISS.—Official advices to the effect that District No. 3, of Covington County, has authorized a bond issue of $50,000, for roads, which are now being surveyed, have been received by us. R. W. Russ is Chn.

JACKSON, MISS.—The Commissioners of Hines County have authorized a bond issue of $200,000 for roads. Surveys are now being made. E. W. James is Highway Comr.

HATTIESBURG, MISS.—An addition of $55,650 has been made to the contract of the NEWPORT CONTRACTING & ENGINEERING CO., of Newport News, Va., for laying a brick driveway in lieu of macadam at the U. S. public building, Hattiesburg.

NEW ORLEANS, LA.—The Finance Committee of the City Council received the following bids recently for grading the neutral ground of St. Claude Ave., from Montegut to Delery Sts.: Hampton Reynolds, $19,640; installing subsurface drainage in connection with paving of Erato St., from Carondelet to Magnolia, Richard Brock, $41,104; paving Soniat St., from Coliseum to Magazine, Standard Paving & Construction Co., $7,433; repaving Seventh St., from Prytania to Camp, Barber Asphalt Co., $10,638; subsurface, etc., in connection with paving Seventh St., as above, Barber Asphalt Co., $8,675; installing subsurface drains, etc., in connection with paving of Jeannette St., from Carrollton Ave. to Audubon, Joseph A. Craven & Co., $17,561; paving of Jeannette St., as above, $17,013; subsurface drains, etc., in connection with paving Seventh St., from Prytania to St. Charles Ave., Barber Asphalt Co., $4,516; repaving Seventh St., as above, Standard Paving & Construction Co., $7,557; paving Erato St., from Carondelet to Magnolia, Southern Bitulithic Co., $34,754; subsurface drains, etc., in connection with paving Soniat St., from Coliseum to Magazine, Richard Brock, $8,024.

CLEVELAND, OHIO.—Bids will be received until noon, Dec. 1, by A. B. Lea, Dir. of Pub. Service, for grading, loaming and otherwise improving that portion of Washington Park and parkway between Harvard road and the Washington Park Viaduct.

CINCINNATI, OHIO.—Bids will be received by the Board of County Commissioners, until noon, Dec. 9, for improving Hill Road, in Colerain Township. Fred Dreihs is Clk.

Bids are asked until noon, Dec. 2, by John J. Wenner, Clk., Bd. of Pub. Service, for furnishing the necessary labor and materials for the improvement of Genesee St., from Central Ave. to Plum St., by setting granite curbs, paving gutters, 24 in. wide, with granite blocks and the necessary rebouldering adjoining the gutters.

MAUMEE, OHIO.—The contract for improving Rogan Road has been awarded to YARRIGAN BROS. The estimated cost is $22,359.

YOUNGSTOWN, OHIO.—The lowest bid received on Nov. 18 by the City Park Commissioners for grading the 75-ft. entrance to Lincoln Park was that submitted by Powers & Perkins, at $4,640.

CRAWFORDSVILLE, IND.—Bids will be received until 10 a. m., Dec. 6, by the Commissioners of Montgomery County, at Crawfordsville, for the improvement of the Lane Road in Union Township, by grading, draining and paving with stone and gravel. B. B. Engle is County Audr.

WILLIAMSPORT, IND.—Bids are asked until 1 p. m., Dec. 19, by the Commissioners of Warren County, at Williamsport, for the construction of a gravel road in Pine Township. Robert L. Winks is County Audr.

BLUFFTON, IND.—The Commissioners of Wells County have awarded a contract to I. T. ALLEN for the construction of a gravel road in Jackson Township.

PLYMOUTH, IND.—The Commissioners of Marshall, Fulton, Pulaski and Stark Counties are preparing to ask for bids for the construction of a gravel road on the line between the four counties.

CHICAGO, ILL.—The City Council has passed a resolution directing that the Board of Local Improvements take steps for the widening of Twelfth St., from Ashland Ave. to the lake front. Charles A. V. Standish is Secy. of Bd.

JUNCTION CITY, KAN.—Contracts for paving 10½ blocks in two sections has been awarded to FLOWER BROS., at $32,800. Curbing and guttering is included, all of asphalt, with a rock filler. WOODWARD & WILSON received the contract for repairing a half mile of macadam street.

LINCOLN, NEB.—The following bids were received on Nov. 18 by Roscoe C. Oyman, City Clk., for paving in Districts Nos. 113 and 183; M. FORD, 49,398 (awarded contract); Barber Asphalt Paving Co., $50,626; National Asphalt Paving Co., $49,076. The engineers's estimate is $51,364.

*AMARILLO, TEX.—Bids were received, on Nov. 21, by Sam. J. Brown, City Secy., for the construction of 80,000 sq. yds. of pavement. The contract was awarded to OKLUNDER BROS., of Waco.

HOUSTON, TEX.—The contract to pave the roads and walks around the William M. Rice Institute has been awarded to W. S. HIPP by W. Waldo, in charge of engineering.

*ORANGE, TEX.—We are officially advised that the contract for constructing a public highway from a point in Louisiana, opposite Orange, eastward across a shallow marsh, 3.46 miles in length, has been awarded to E. W. BROWN, of Orange. Bids were received on Oct. 6 by S. R. Shepherd, Secy. the Commercial Club.

BARTLESVILLE. OKLA.—The City Commissioners are planning to pave Second St., it is reported. Bids will soon be received.

TULSA, OKLA.—Bids will be received by E. B. Cline, City Audr., until Dec. 20, for paving 90 blocks. T. C. Hughes is City Engr. Estimated cost, $300,000.

SEATTLE, WASH.—The contract for paving 14,330 sq. yds. with brick was awarded, on Nov. 18, we are officially advised, to the BARBER ASPHALT PAVING CO., Henry Bldg., at $72,662. Bids were received on Nov. 4 by C. B. Bagley, Secy. Bd. Pub. Wks. The estimated cost is $75,000.

PORTLAND, ORE.—There is to be a macadam pike from the Columbia River to Oregon's southern boundary line. To build it the Oregon Highway Association will be organized. The cost is estimated at $5,000 a mile for approximately 300 miles. It will be known as the Oregon Highway.

WOODBURN, ORE.—Bids will be received by the City Recorder, until 8 p. m., Dec. 6, for paving the roadway of Arthur St. with smooth-surface pavement.

BERKELEY, CAL.—The City Council has awarded the contract for macadamizing Arch St., from the northern line of Eunice St. northerly to the boundary line of Berkeley, to EDWARD SCHMIDT.

ALHAMBRA, CAL.—The Board of Trustees has ordered the grading and oiling of Sixth St., together with the construction of cement curbs, gutters and culverts thereon; also for the same work on Palm Ave. A. A. Clapp is City Clk.

GLENDALE, CAL.—The Board of Supervisors has awarded contract to W. K. PEASELEY, Wilcox Bldg., Los Angeles, for improvement of Glendale and Tropico Roads and Sixth St., in Glendale, at $10,000; also for improvement of La Cadda-Verdiago Road, at about $13,888, both pieces of work being under the supervisory of the Highway Commission.

LOS ANGELES, CAL.—The following bids have been received by the Board of Public Works for the improvement of Hoover St., from Pico to Alvarado Terrace: George R. Curtis, 19 cts. per sq. ft. for asphalt paving; 30.9 cts. per sq. ft. brick paving; 14 cts. per sq. ft. macadam paving; 35 cts. per lin ft. for cement curb; 8 cts. per sq. ft, for grading, graveling and oiling; 28 cts. per sq. ft. for vitrified brick gutters; 14 cts. per sq. ft. for cement gutters; $300 for culverts, complete. Withers & Crites, 17½ cts., 28½ cts., 12 cts., 33 cts., 28 cts., 14 cts., $263. B. F. Ford, 18 cts., 30 cts., 13 cts., 30 cts., 8 cts., 30 cts., 13 cts., $400. Fairchild-Gilmore-Witton Co., 17½ cts., 28 cts., 12 cts., 30 cts., 12 cts., 28 cts., 16 cts., $310.

For improving Fireman St.: P. Heim, 25 cts. per sq. ft. for asphalt paving; $2.75 per lin. ft. for grading and graveling; 35 cts. per lin. ft. for cement curb; 16 cts. per sq. ft. for cement gutter; 32 cts. per sq. ft. for vitrified block gutter; $300 for storm sewers and appurtenances. H. O. Richwine, 35 cts., $2.85, 35 cts., 16 cts., 30 cts. and $40 for storm drain with catch basin and outlet, complete. J. E. Shafer, 15 cts., $2, 34 cts., 14 cts., 32 cts., $100 for culverts, complete, and 40 cts. per lin. ft. for cement curb on Temple St. H. H. Curtis, 20 cts., $2.20, 35 cts., 14 cts., 30 cts., $100 for storm sewers, complete. O. A. Nicols, 16 cts., $2.65, 35 cts., 16 cts., $100 for storm drain, complete.

For improving Marengo Ave. from State St. to Brittania St.: D. D. Chapman, $2 for regrading, oiling and graveling; $2.65 for grading and graveling; 35 cts. per lin. ft. for cement surb; 15 cts. per sq. ft, for cement gutter; 35 cts. per sq. ft. for vitrified block gutter; H. O. Richwine, 7 cts. per sq. ft., $2.90, 35 cts., 16 cts., 30 cts.

For improving Bellevue Ave., from Bonnie Brae to Belmont Ave.: P. Heim, $9 per lin. ft. for grading and graveling, 35 cts. per lin. ft. for cement curb, 16 cts. per sq. ft. for cement gutter, 32 cts. per sq. ft. for vitrified block gutter.

For improving Wadsworth St.: David Joy, $2.25 per lin. ft. for grading and graveling, 30 cts. per lin. ft. for cement curb, 14 cts. per sq. ft. for cement gutter; P. H. Heim, $2.25, 32 cts., 15 cts.

For improving Valencia St.: David Joy, 14 cts. per sq. ft. for cement gutter, 30 cts. per sq. ft. for vitrified block gutter.

For improving 35th St., from Naomi to Central Ave.: P. Heim, 10 cts. per sq. ft. for cement sidewalk.

OCEAN PARK, CAL.—Bids will be received until Dec. 5 by G. G. Watt, City Clk. for the following street work: For improving Howland, Sherman, Johnson, Clark and Olive Sts. by grading and constructing 12 ft. cement walks; for improving Broadway by grading, asphalt paving, on concrete base, cement curb, corrugated iron culverts, etc., and for constructing cement curbs and sidewalks on Lake Ave.

SACRAMENTO, CAL.—A contract for the construction of Del Paso Blvd., which will run diagonally through North Sacramento, at the cost of between $60,000 and $75,000, has been entered into by the Sacramento Land Co. and J. H. FALCONER CO., road builders. C. B. Wilmarth, L. J. Hinsdale and others are members of the Board of Directors.

SALINAS, CAL.—Bids have been received for road work and culverts in the Bradley-San Ardo road district as follows: Cotton Bros., $11,727; John DeReynold, $9,987; W. F. Greene, $11,158; J. Smith, $10,582; Mahoney Bros., $11,417; MORRISON & PERKINS, $9,766 (awarded contract). The surveyor's estimate was $10,378.

SAN DIEGO, CAL.—The Fairchild-Gilmore-Wilton Co. submitted the following bids for improving G St.: Catch basins, $15 each; paving, $1.98 a sq. ft.; granite block gutter, 39 cts. a sq. ft.; cement curb, 35 cts. a lin. ft.; 16-ft. cement pipe drain, 75 cts. a lin. ft.; 10-ft. cement pipe drain, 50 cts. a lin. ft.

SANTA ANA, CAL.—The Board of Trustees has ordered the repairing of West Fourth St. Ed. Tedford is City Clk.

DOWNIEVILLE, CAL.—Bids for the construction of the wagon road from the Sardine Bridge on the Young American Road, to the Plumas County line have been opened by the Board of Supervisors. Three bids were submitted as follows: Paul Tomasevich, $8,400, and $7,400, the last excepting the bridge work and culverts; Homer J. Gould, $7,973. The Supervisors rejected all bids.

PHOENIX, ARIZ.—The Phoenix Citizens' Street Paving Association, composed of citizens of the city, is conducting a campaign having for its object the paving of the streets and roads in and about the city of Phoenix, with a pavement suitable for the climatic conditions which prevail here. I. J. Lipsohn is Secy.

BERLIN, ONT.—The WARREN BITULITHIC CO. has secured a contract for paving certain streets, at a price between $80,000 and $100,000.

LONDON, ONT.—Bids will be received by G. R. Geary, Mayor, Chn. Bd. of Control, until noon, Dec. 5, for grading Woodville Ave., from Conduit St. south 600 ft.

Bids will be received until noon, Dec. 6, by G. R. Geary, Mayor, for road making materials, etc., required for 1911.

NEW WESTMINSTER, B. C.—The HASSAM PAVING CO. has been awarded a contract for paving Third St., at $44,760.

MANUFACTURING PL[illegible]NTS.

(* *Denotes that this work is* [illegible]rtised in *Engineering News.*)

BOSTON, MASS.—Bids will b[illegible]eived in about a week by Charles D. [illegible]ly, Fire Comr., for the construction of a [illegible]ir shop, 70 × 100 ft. It will be a firepr[illegible]ructure, four stories high, of brick, st[illegible]d concrete. Parker, Thomas & Ric[illegible]0 State St., are the Archs. Estimated [illegible] $90,000.

NEW BEDFORD, MASS.—Th[illegible]te Mill Corporation plans to build a 5-[illegible]y brick cotton storage building, 90.8 × [illegible] ft. It also intends to erect a picker-ho[illegible] 94 × 95 ft., two stories high and with [illegible] gravel roof, and a wastehouse, 21 × 49 [illegible] with a concrete roof.

NEW HAVEN, CONN.—The F[illegible]LEY COMPANY, Inc., of Springfield, [illegible]s., has been awarded the contract by the [illegible] York, New Haven & Hartford R. R. Co., [illegible] a concrete, steel and brick, 47-stall ro[illegible] house, to be erected at Cedar Hill. Th[illegible] contract price is said to be $160,000.

ILION, N. Y.—The Sterling Mills [illegible]e planning to erect an addition which w[illegible] enable the company to increase its capa[illegible]. The present equipment of the plant [illegible]mprises 960 spinning, 35 knitting and 20 s[illegible]ing machines and three sets of cards.

FRANKFORT, N. Y.—The Frank[illegible] Paper Co., recently organized, has taken [illegible]session of a factory formerly occupied by [illegible] Gates Match Co., and more recently by [illegible] Duofold Health Underwear Co. at F[illegible]nkfort, and is installing machinery for th[illegible] manufacture of tissue paper. The company is capitalized at $100,000. Its officers are: C. H. Marshall, Pres. and Gen. Mgr.; T. F. McKeough, Vice-Pres.; I. W. Stre[illegible], Secy., and George I. Whiffen, Treas., all of [illegible]tica.

NEW YORK, N. Y.—The Ward B[illegible]ead Co. has been organized, with a capital of $5,000,000, headed by Henry C. Phipps, for the purpose of erecting two bakeries, one in the Bronx and the other in Brooklyn, which, when completed, will represent an expenditure of about $1,500,000. The directors are: George S. Ward and James B. Arthur, Pittsburg; George L. Walter, Sharpsburg; Joseph Speidel, Wheeling; Robert B. Ward and William B. Ward, Larchmont, N. Y.; Henry C. Phipps, New York; William C. Evans, New Rochelle, N. Y., and B. Walker, Paterson, N. J.

PHILADELPHIA, PA.—Charles H. Caspar, West End Trust Bldg., is receiving bids for the construction of additions and alterations to the cold storage plant at 32d and Master Sts. Weger Bros. are the owners. It will be of concrete, steel and brick, one story high. Cost, $20,000.

Plans are being prepared by William Steele & Sons, Archs., 1600 Arch St., for an addition to the shoe factory at Eleventh and Race Sts., owned by the Smaltz-Goodwin Shoe Co.: It will be of steel, brick and concrete, seven stories high.

NEWBERRY, PA.—The Susquehanna & New York R. R. Co. plans the erection of shops here, it is stated. S. T. Hoyt, Jr., of Williamsport, is Ch. Engr.

TATAMY, PA.—The Gold-Wiley Hosiery Co., Inc., expects to begin building operations on a plant early in the spring to dye and finish goods and add some new knitting machinery in Easton, plans for which are now being prepared. This company has a capital stock of $70,000. Miller R. Wiley is Pres. and Buyer: David Balp, Treas.; and Harry Carter, Supt.

BALTIMORE, MD.—The Kast Setting & Gathering Machine Co. has been organized with a capital stock of $25,000, for the purpose of erecting a plant to manufacture machines. Edward R. Kast and J. E. McGinley, 32 South St., are the promoters.

Plans are now being completed and bids will be received about Dec. 15 for the erection of a 2-story and basement bakery, 58 × 84 ft., for the City Baking Co., Equitable Bldg. It will be constructed of brick, steel and wood. John Freund, Jr., 210 East Lexington St., is the Arch. Estimated cost, $13,000.

HAGERSTOWN, MD.—The Troy Laundry Co. is receiving bids for the construction of an addition to its laundry here. It will be a 2-story structure, of brick and concrete, 70 × 100 ft. Mack & Kountz, Archs., prepared the plans. Cost, $10,000.

HIGHLANDTOWN (Baltimore post-office), MD.—The contract to erect a brewery for the Monumental Brewing Co. on Baltimore St., between Fifth and Seventh Sts. has been awarded to J. HENRY MILLER, 106 Dover St., Baltimore. It will cost about $80,000. The proposed structure will be of brick, with concrete foundations and stone trimmings. It will be used as a bottling house. Otto C. Wolf, Denckla Bldg., Philadelphia, Pa., is Arch.

MARTINSBURG, W. VA.—F. H. Crawford heads a company of local capitalists who will erect a plant for the manufacture of woolen goods. Estimated cost, $1[illegible]0,000.

George W. Raymond, of Dayton, Ohio, has purchased a 90-acre tract of land from F. Vernon Aler and will begin the erection of a plant next spring for the manufacture of sewer pipe and hollow ware. It will be fireproof, of brick and roofing tile.

GREENVILLE, S. C.—Bids will be received about Jan. 1, we are officially advised, for the erection of a cotton mill by [illegible] I. Westervelt, of Greenville. There will be two buildings, 130 × 300 ft., and 200 × [illegible]0 ft., two stories high, and a weave sh[illegible], of brick, wood and steel construction. Lockwood, Greene & Co., 93 Federal St., Boston, Mass., and of Greenville, are the Archs. Estimated cost, $900,000.

BUCYRUS, OHIO.—DeVore & McGormly, Ohio Bldg., Toledo, are preparing plans for a factory for the Bucyrus Foundry & Machine Co., of Bucyrus. The owners will receive bids. The plant will be constructed of brick and steel, with a composition roof and concrete floors.

CLEVELAND, OHIO.—The National Woolen Co. plans to construct a factory building on West 2d St., near Denison Ave. It will be a 3-story structure, 102 × 129 ft., of brick, steel and wood. N. I. Dryfoos, 3131 West 33d St., is Pres.

The Kessler Co., Electric Bldg. is contemplating building a factory on Howard Ave., near the Baltimore & Ohio R. R. tracks.

MENTOR, OHIO.—Plans are being made by the Mentor Knitting Mills Co., at Mentor, to double the production of the plant. New machinery will be installed in the present building as early as possible, and if necessary a new mill will be erected. Late in 1909 the capital stock was increased to $1,000,000, it is stated.

TOLEDO, OHIO.—George S. Mills, Ohio Bldg., Toledo, is preparing plans for a 3-story factory, 40 × 60 ft., for John Swigart, 3322 Cherry St. The architect will receive estimates soon.

TOLEDO, OHIO.—The Inter-State Stock Yards Co., organized last spring, plans to build new stock yards, three packing houses and a packing plant in East Toledo. John Zehner, Pres. of the Zehner Bros. Packing Co., of this city, is Pres. of the new company; the Vice-Pres. is J. B. Gibson, of Buffalo, export cattle buyer for Swift & Co.; Secy., Harry W. Robinson, Secy. and Treas. of the Tri-State Commission Co., of Toledo; Mgr., W. S. Glasgow, Pres. of the Tri-State Commission Co.; Treas., Adam Zehner, Mgr. of the Zehner Bros. Packing Co.

YOUNGSTOWN, OHIO.—Two continuous mills will be erected by the Republic Iron & Steel Co. to take the place of the last four hand mills at the Brown-Bonnell plant, it is stated.

LAFAYETTE, IND.—DeVore & McGormly, Ohio Bldg., Toledo, Ohio, are preparing plans for a 1-story addition, 130 × 40 ft., to the plant of the LaFayette Box Board & Paper Co., of LaFayette. The architects will receive estimates soon. The construction will be of reinforced concrete, brick and steel, with a composition roof and concrete floors.

DETROIT, MICH.—Malcomson & Higginbotham, Moffat Bldg., have let the general contract for the 3-story factory building, 67 × 200 ft., for Edmunds & Jones, 436-50 Lawton Ave., to DELISLE & CO., Home Bank Bldg. Cost, $40,000.

Louis Kamper, Fine Arts Bldg., has let the contract for the structural iron work for the 3-story addition, 100 × 100 ft., to the plant of the Detroit Forging Co., H. Scherer, Pres., 120 Mt. Elliott Ave., to the J. E. BOLLES IRON WORKS, Fourth and Porter Sts. Cost, $30,000.

The Koenig Coal Co., Dequindre and Erskine Sts., John Koenig, Pres., will rebuild its coal elevator, that was recently destroyed by fire. It will be constructed of brick and steel.

ADRIAN, MICH.—The Van Camp Packing Co., care of E. Kennedy, Kentucky and River Sts., Indianapolis, Ind., has let the general contract for the 1-story milk evaporation plant, 205 × 90 ft. and 187 × 88 ft., and a power house, 70 × 70 ft., to LYMAN B. MILLIKAN, State Life Bldg., Indianapolis. Cost, $100,000.

DETROIT, MICH.—Varney, Winter & Varney, Equity Bldg., have been commissioned by the Chicago Pneumatic Tool Co., Second Ave. and the Michigan Central R. R., to prepare plans for a 2-story addition to the two present buildings, to be built immediately.

The American Agricultural Chemical Co., George B. Barton, Mgr., Forman and Carbon Aves., are having plans prepared for a 2-story plant, 137 × 200 ft. The owners will buy all materials and let all contracts.

Smith, Hinchman & Grylls, 710 Washington Arcade, have let the following contracts for the boiler plant for the Public Lighting Commission of the city of Detroit, F. L. Bowler, Secy.: Structural iron work to the DETROIT BRIDGE & STEEL WORKS, Dearborn St. and Michigan Central R. R.; masonry to BRYANT & DETWEILER, Hammond Bldg.; carpentry to STRELOW & PETT, 700 Mack Ave.; painting to BREDE & SCHROETER, 20 Adams Ave., all of Detroit.

The Solvay Process Co., William B. Cogswell, Mgr., Jefferson and Solway Aves., Detroit, have let the general contract for the 1-story addition, 290 × 450 ft., to the RIDER, CONNOLLY CO., of Pittsburg, Pa., for $140,000.

The Dominion Stamping Co. of Walkerville, Ont., have let the general contract to O. MISCH, Home Bank Bldg., Detroit, for a factory, 30 × 130 ft., to be located on Bellevue Ave., Detroit.

William Clippert, 1956 Michigan Ave., is having plans prepared for a brick plant, and will soon receive estimates.

Varney, Winter & Varney, Equity Bldg., have let the general contract for the 2-story factory, 60 × 320 ft., for the Seitz Auto Transmission Co., 225 Beecher St., Detroit, to L. N. BEAKER, 1166 Fourth Ave., Detroit; steam heating to A. DES. RAUCHE, Wyandotte, Mich. Cost, $40,000.

MUSKEGON, MICH.—W. S. Potwin, 1129 Dearborn St., Chicago, Ill., is contemplating the erection of a plant, 100 × 50 ft., in Muskegon, for the manufacture of rubber insulation.

EATON RAPIDS, MICH.—J. Lamb, of Big Rapids, Mich., will soon erect a manufacturing plant in Eaton Rapids, for the manufacture of agricultural machinery.

PONTIAC, MICH.—Baxter & O'Dell, Hammond Bldg., Detroit, have completed plans for a 1-story foundry, 130 × 140 ft., for the Pontiac Motor Cycle Co., of Pontiac. The owners will buy all materials and sublet contracts. Cost, $30,000.

MENOMINEE, MICH. — The Milwaukee Bridge Co., of Milwaukee, Wis., is preparing plans for a 2-story brick saw mill, 206 × 90 ft., for the J. W. Wells Lumber Co., of Menominee. Cost, $20,000.

JACKSON, MICH.—The Baker Drop Forge Co., W. G. Baker, Pres.; C. M. Frost, Secy., care of the Frost Gear & Machine Co., Jackson, has let the general contract for the new drop forge foundry to the DEVORE-McGORMLY CO., Ohio Bldg., Toledo, Ohio, for $20,000.

MARSHALL, MICH. — The DeVore-McGormly Co., Ohio Bldg., Toledo, Ohio, is receiving estimates on a brick and stone factory, 2 stories high, 125 × 450 ft., for the Marshall Furnace Co., of Marshall. The plant includes a foundry, storage building and a sand shed. Cost, $40,000.

MORENCI, MICH.—George S. Mills, Ohio Bldg., Toledo, Ohio, has let the general contract for a plant, 2 stories and basement, 70 × 80 ft., for the Ohio Diary Co., care of H. A. Page, 553 Erie St., Toledo, Ohio, to A. BENTLY, 37 North Huron St., Toledo. Cost, $18,000.

BATTLE CREEK, MICH.—The Kellogg Toasted Corn Flake Co., J. F. Kellogg, Mgr., Porter and Stiller Sts., Battle Creek, are having preliminary plans prepared for a 4-story and basement factory, 63 × 150 ft. Cost, $45,000.

REED CITY, MICH.—The Manser, Owen & Ames Engineering Co., of Grand Rapids, are preparing plans for a 1-story and basement factory, 80 × 120 ft., for William Horner, of Reed City. Cost, $20,000.

STURGIS, MICH.—Oliver Chamberlain, of Cleveland, Ohio, has let contracts for the 3-story and basement factory for the National Carbon Coated Paper Co., Cincinnati, Ohio. The plant is to be located in Sturgis. Masonry and carpentry to WALLACK & CAVIN, steam heating to the CHAPMAN CO., both of Sturgis. Cost, $30,000.

ANN ARBOR, MICH.—George Scott, Henning Bldg., has let the general contract for a manufacturing building for the Huron Mfg. Co., of Ann Arbor, to FRED. C. WEINBERG, 713 Fifth St., Ann Arbor. The owners are taking bids on steam heating.

BENTON HARBOR, MICH.—Tallmadge & Wason, 188 Madison St., Chicago, Ill., have let contracts for a 2-story and basement, brick factory, 57 × 137 ft., for Baker & Vawter Co., 143 Dearborn St., Chicago, in Benton Harbor: General contract to SHAVER & BACON, 176 Bronson St.; steam heating to EDWARD BRAMMAL, both of Benton Harbor.

GRAND RAPIDS, MICH.—E. A. Clement, John Snitseler, H. M. Liesvelt, E. L. Kinsey, Christian Bertsch and Dr. S. Porter Tuttle are said to be interested in the establishment of a new hosiery mill in Grand Rapids.

MILWAUKEE, WIS.—The Sternberg Mfg. Co., which recently erected a plant at Rogers St. and 46th Ave., is now contemplating several large additions. A power plant, 50 × 50 ft. is being erected.

MILWAUKEE, WIS.—At the annual meeting of the Wisconsin Pharmacal Co. it was decided to double the factory space in the spring, accepting a proposition from H. C. Schranck, owner of the premises now occupied by the company at 49 Biddle St., to erect another building adjoining the present factory, three stories high and corresponding to it in size.

The United Cold Storage Co., recently organized, with a capital stock of $700,000, will erect a number of cold storage plants in different cities of the State. The one to be erected in Milwaukee will contain 600,000 cu. ft. of space, it is stated.

WAUKESHA, WIS.—Plans are being made by local business men to erect a gray iron foundry plant, to be occupied by the L. B. Powell Co., of Menomonee Falls, Wis.

OMAHA, NEB.—Plans are being prepared for a plant for the Omaha Structural Steel Co., at 48th and Leavenworth Sts. John W. Towle and C. A. Pratt are interested.

TAYLOR, TEX.—An overall factory is to be established here. George Harris, Secy., Bd. of Trade, can be addressed.

SPOKANE, WASH.—A permit has been granted to the Sammis Monumental Co. for the erection of a 2-story brick factory for the manufacture of monumental stone. Estimated cost, $20,000.

BERKELEY, CAL.—The Berkeley Sheet Metal Works, which recently took over the holdings of Riddle, Vaughn & Co., San Francisco, will locate its factory here at the southwest corner of Third and Delaware Sts. The site selected for the factory is 250 × 100 ft., and the buildings will occupy most of the ground.

RIVERSIDE, CAL.—The Riverside Creamery Co., of Arlington, will erect a dairy and creamery building, 45 × 70 ft., here. It will be of brick or cement block construction. Estimated cost, $10,000.

LOS ANGELES, CAL.—The Los Angeles Investment & Trust Co., 337 South Hill St., plans to construct a milling and lumber plant at the northwest corner of Slausen and Western Aves. The mills planned will occupy ten acres of an 84-acre tract and the rest of the area will be given over to the storing of 6,000,000 ft. of lumber. The buildings of the proposed mammoth plant will include two warehouses, each 225 × 80 ft, in size; a planing mill; a general milling building, offices, dry kiln buildings, boiler and power house, etc. Provision has been made for 1,960 ft. of switching tracks. It has not yet been determined whether the buildings will be of brick or frame construction. The total cost of the plant is estimated by the builders at about $500,000.

ONTARIO, CAL.—The Harvey & Braun Fruit Co. will erect a fruit packing plant here. There will be two concrete buildings, one 80 × 200 ft., and the other, 80 × 150 ft.

FALLON, NEV.—Plans and specifications for the plant to be erected by the Nevada Hills Mining Co., about 45 miles from Fallon, have been completed by John B. Fleming. The proposed mill will be a steel structure, with concrete foundation and floors. It will have a daily capacity of from 100 to 150 tons.

CHATHAM, ONT.—The American Pad and Textile Co., of Greenfield, Ohio, has purchased a site and will erect a Canadian branch factory here, employing 75 hands.

LINDSAY, ONT.—The Thomas Shoe Co., of Cleveland, Ohio, will erect a factory employing 200 hands.

MERRITTON, ONT.—The Independent Rubber Co. has been organized, with a capital of $500,000, and will soon begin operations at Merritton, where it has taken over a building formerly used as a woolen mill. James Robinson, of Montreal, Que., is interested.

VANCOUVER, B. C.—Lincoln Chandler, of Birmingham, England, is in Vancouver in connection with the establishment of an engineering construction works in close proximity to the city. At least $5,000,000 will be expended upon this undertaking, the works to cover from 50 to 100 acres. Mr. Chandler is connected with the British Empire Bridge Works, of Birmingham, and is Secy. of the Metropolitan Amalgamated Railway Carriage & Wagon Co., Ltd., of Saltley, Birmingham. He states that it is the intention of his company to proceed with the launching of the undertaking within the next few months and that it will be situated near Vancouver.

LETHBRIDGE, ALTA.—C. F. Hoffman has organized a company to manufacture and store ice. The necessary buildings will be erected at once. The capital of the company is $100,000.

MISCELLANEOUS CONTRACTS.

*(*Denotes that this work is advertised in Engineering News.)*

U. S. RECLAMATION SERVICE.—All news concerning canal and irrigation projects, etc., will be found under Water Supply—Irrigation.

DREDGING.—Boston, Mass.—The Metropolitan Park Commission on Nov. 15 decided to grant an appropriation of $25,000 for dredging Charles River in Waltham and Newton.

DREDGING.—Boston, Mass.—Bids were received as follows on Nov. 23 for dredging in the Merrimac River by Col. Frederic V. Abbot, Corps Engrs., U. S. A., Boston: (a) dredging, scow measurement below Rocks Bridge; (b) above Rocks Bridge; (c) removing boulders exceeding 1 cu. yd. below Rocks Bridge; (d) above Rocks Bridge: John R. Burke, Wollaston, Mass., (a) $2.50, (b) 62 cts., (c) $15, (d) $15; Commonwealth Dredging Co., Boston, Mass., (a) $2.25, (b) 57 cts., (c) $10, (d) $10.

PILES.—Everett, Mass.—The JOHN T. SCULLY FOUNDATION & TRANSPORTATION CO., Cambridge, Mass., has been awarded contract by the city for furnishing and driving piles.

*DREDGING.—Newport, R. I.—Bids were received on Nov. 19 by Lieut.-Col. J. C. Sanford, Corps Engrs., U. S. A., for dredging in Newport Harbor: (a) dredging per cu. yd. place measurement, (b) boulders per cu. yd. (c) total: Daly & Hammond Dredging Co., Ogdensburg, N. Y., (a) 20 cts., (b) $8, (c) $154,786; G. H. Breymann & Bros., Toledo, Ohio, (a) 21½ cts., (b) $3, (c) $165,835; J. S. Packard Dredging Co., Providence, R. I., (a) 25.9 cts., (b) $10, (c) $200,412; Furst Clark Construction Co., Baltimore, Md., (a) 23.9 cts., (b) $9, (c) $184,913; Charles M. Cole, Fall River, Mass., (a) 26 cts., (b) $15, (c) $201,682; William Beard & Co., New York, (a) 28 cts., (b) $15, (c) $217,080; Morris & Cummings Dredging Co., New York, (a) 24.2 cts., (b) $8, (c) $187,123; Taylor Dredging Co., Jersey City, N. J., (a) 24.8 cts., (b) $12, (c) $192,143.

IRON RAILINGS.—New York, N. Y.—Bids will be received by the Park Board until 3 p. m., Dec. 8, for labor and material required for furnishing and erecting iron railings around the grass plots in Broadway, between 110th and 122d Sts., Boro. Manhattan.

BROKEN STONE, ROAD ROLLER, ETC.—New York, N. Y.—Bids are asked by George Cromwell, Pres. Boro. of Richmond, until noon, Dec. 6, for furnishing 3,000 tons of broken stone and screenings in Stone District No. 1; 2,000 tons in Stone District No. 2; and for furnishing one 15-ton (gross) steam road roller with equipment.

COMFORT STATION.—New York, N. Y.—Bids will be received by the Park Board until 3 p. m., Dec. 8, for furnishing all labor and materials required for erection and completion of a comfort and shelter building located in Winthrop Park, Boro. of Brooklyn, together with all the work incidental thereto.

ELIMINATION OF GRADE CROSSING.—Buffalo, N. Y.—See item under Bridges.

DOCK.—Catskill, N. Y.—The Hudson River Day Line has bought an extensive dock property and buildings at Catskill, and will enlarge and improve the same.

FIRE PROTECTION, IRON RAILINGS.—New York, N. Y.—Bids are asked by C. B. J. Snyder, Supt. of School Bldgs., Dept. of Education, until 3 p. m., Dec. 12, for fire protection work, etc., at Public Schools 1, 2, 4, 67, 8, 9, 11, 13 and 28, Boro. The Bronx; also for new iron railings, etc., at Public Schools 15, 21, 31, 40, 65, 83, 104, 150, 159 and 171, Boro. Manhattan.

BARGE CANAL.—Albany, N. Y.—Bids are asked by F. C. Stevens, Supt. Pub. Wks., until noon, Dec. 20, on Barge Canal Contracts Nos. 48, 51, 76, 77 and 80; and until noon, Dec. 21, on Barge Canal Contracts No. 91 and Contracts A and B of the Cayuga and Seneca Canal. This work is described as follows: Contract No. 48, Erie Canal, Section 8, for the construction of the canal from a point near the N. Y. C. R. R. crossing at Lyons to a point near the West Shore R. R. crossing at East Newark. Length, 5.75 miles; engineer's estimate, $1,626,811; Contract No. 51, Erie Canal, Section 5, for constructing a canal feeder between Trenton Falls and Nine Mile Creek, together with a gate-house, culverts and all other work appertaining to the contract. Length, 5.75 miles; engineer's estimate, $424,710; Contract No. 76, Erie Canal, Section 8, for the construction of the canal from a point near the West Shore R. R. crossing at East Newark to a point about one-half mile east of Port Gibson. Length, 5.77 miles; engineer's estimate, $1,504,776; Contract No. 77, Erie Canal, Section 8, for constructing the canal from a point about one-half mile east of Port Gibson to about one-half mile west of Palmyra. Length, 6.78 miles; engineer's estimate, $1,790,672; Contract No. 80, Oswego Canal, Section 1, for the construction of a dam and bulkheads across the Oswego River at Phoenix, N. Y.; engineer's estimate, $134,340; Contract No. 91, Erie Canal, Section 1, for building and equipping hydro-electric power plant on the Erie Canal near the east end of Crescent Dam; engineer's estimate, $44,600; Contract A, Cayuga and Seneca Canal, Section 1, for constructing Lock No. 1 and Dam No. 1 near Cayuga. Length, .25 mile; engineer's estimate, $393,133; Contract B, Cayuga and Seneca Canal, Section 1, for excavating a channel mainly in the Seneca River from Montezuma to deep water in Cayuga Lake, from Cayuga Lake to Seneca Falls and from Waterloo to deep water in Seneca Lake. Length, 17.2 miles; engineer's estimate, $2,024,550. Contracts A and B are the first contracts for the improvement of the Cayuga and Seneca Canal to be advertised. The issue of bonds for $7,000,000 for the improvement of this canal so as to make the same a part of the Barge Canal system was approved by the people at the 1909 election.

BARGE CANAL.—Albany, N. Y.—Barge Canal contracts have been awarded as follows by F. C. Stevens, Supt. Pub. Wks.: For Contract No. 27A, Champlain Canal, Section 2, for completing the construction of the canal, together with all incidental work between Stations 1046 + 16, the south end of Contract No. 25 at Dunham's Basin Road, and the Hudson River at Fort Edward, Station 1245, length, 3.76 miles, to HOLLER & SHEPHERD, Ellwanger & Barry Bldg., Rochester, N. Y., at $449,499; for Contract No. 37, Oswego Canal, Section 1, for improving the Oswego Canal between Fulton and Oswego; length, 9.73 miles, to AMERICAN PIPE & CONSTRUCTION CO., 112 North Broad St., Philadelphia, Pa., at $2,323,998; for Contract No. 82, Erie Canal, Section 9, for constructing new highway bridge superstructures over the Erie Canal between the Genesee River and the east end of Contract No. 6 within the limits of Contract No. 21 to the GROTON BRIDGE CO., Groton, N. Y., at $28,841. List of bidders noted on Nov. 24.

SAND-BLAST MACHINES.—Buffalo, N. Y.—Francis G. Ward, Comr, Pub. Wks., will soon ask for bids for a sand-blast machine or machines for cleaning structural steel of the city's viaducts and bridges.

PIER.—Ventnor City, N. J.—Bids will be advertised on Dec. 1 for the construction by the city of a public pier.

CRUISER, TRAINING SHIP.—Philadelphia, Pa.—The contract for the construction of a 2,000-ton cruiser and a 1,200-ton training ship has been awarded by the Government to the WILLIAM CRAMP & SON SHIP & ENGINE BUILDING CO., Philadelphia, at $510,000 and $338,000, respectively.

REPAIRING PIER.—Philadelphia, Pa.—The following bids were opened on Nov. 15 by Joseph Hasskarl, Acting Director, Dept. Wharves, Docks and Ferries, for repairs to the Arch St. pier: American Paving & Construction Co., $12,741; Filbert Paving & Construction Co., $12,269; M. & J. B. McHugh, $11,619; Girard Construction Co., $10,875; Latta & Terry Construction Co., $11,832; BRATTON CO., 5034 Cedar Ave., Philadelphia, $9,510 (awarded contract).

GRADING WORK. — Philadelphia, Pa.—George R. Stearns, Dir. Pub. Ser., has awarded two contracts for grading in connection with the elevation of the tracks of the Port Richmond Branch of the Philadelphia & Reading Ry. Co. JAMES D. DORNEY, 1227 East Berks St., Philadelphia, secured contract at $284,423.15 for making a depression of 10 ft. in Frankford and Lehigh Aves. and adjacent streets which will pass under the elevated railroad tracks. The McNICHOL PAVING & CONSTRUCTION CO., 19th and Westmoreland Ave., Philadelphia, received the contract for changing the grade of Kensington and Lehigh Aves. and adjacent streets, at $198,707. These awards must be approved by the railway company to become effective.

DREDGING. — Wilmington, Del.—Bids for dredging Raccoon Creek, N. J., were received by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, Del., on Nov. 17, as follows: River & Harbor Improvement Co., Marine and Merchants' Bldg., Philadelphia, Pa., 14.9 cts. per cu. yd., place measurements; the Rickards Dredging Co., Real Estate Trust Bldg., Philadelphia, 15.5 cts. per cu. yd., place measurement.

JETTY WORK.—Wilmington, Del.—Bids will be received until noon, Dec. 17, by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, for jetty construction and repairs at the mouth of the Mispillion River, N. J.

*REMOVING WRECK.—Wilmington, Del.—Bids will be received until noon, Dec. 28, by Maj. R. R. Raymond, Corps. Engrs., U. S. A., Wilmington, for removing wreck of steamer "Brazonia," lying sunk in Absecon Inlet, N. J.

DREDGING.—Wilmington, Del.—The following bids were opened on Nov. 15 by Maj. R. R. Raymond, Corps Engrs., U. S. A., Wilmington, for dredging in Mispillion River: River & Harbor Improvement Co., Philadelphia, Pa., 11.4 cts. per cu. yd.; Rickard's Dredging Co., Philadelphia, Pa., 11 cts. Amount available for the work, $13,500.

TORPEDO BOAT DESTROYERS.—Washington, D. C.—Contracts for constructing six new torpedo destroyers were awarded by the Secretary of the Navy on Nov. 22. Two of the vessels will be built by the BATH IRON WORKS, Bath, Me. One destroyer each will be constructed by the FORE RIVER SHIPBUILDING CO., Quincy, Mass.; the NEW YORK SHIPBUILDING CO., Camden, N. J.; the WILLIAM CRAMP & SON SHIP & ENGINE BUILDING CO., Philadelphia, and the NEWPORT NEWS SHIPBUILDING & DRY DOCK CO., Newport News, Va. These vessels will be of 740 tons displacement, and will make a speed of about 30 knots an hour. Bids were opened on Nov. 8. List of bidders noted on Nov. 10.

SALE OF VESSEL.—Washington, D. C.—Bids will be received by the Navy Department until noon, Dec. 22, for the purchase of the U. S. S. "Detroit." This vessel, which may be examined at the navy yard, Boston, Mass., will be sold for cash to the bidder offering the highest price therefor above her appraised value, $13,812. Beekman Winthrop is Acting Secy.

REVENUE CUTTERS.—Washington, D. C.—Bids will be received by the Treasury Department until 2 p. m., Dec. 19, for building two revenue cutters, to be known while in course of construction or until launched as Nos. 22 and 23. Specifications and plans, together with forms of proposal, contract, etc.; may be obtained upon application to the department.

ELEVATOR.—Fairmount, W. Va.—The OTIS ELEVATOR CO., 17 Battery Pl., New York, has secured the contract for installing two 8,000-lb. electrically driven freight elevators here.

STEEL SHED.—Charleston, S. C.—The contract for the construction of a steel storage shed at the navy yard, Charleston, bids opened on Nov. 5, has been awarded to the CHARLESTON ENGINEERING & CONTRACTING CO., Charleston, S. C., at $13,500. List of bidders noted on Nov. 10.

REMOVAL OF WRECK.—Jacksonville, Fla.—Bids were received by Capt. George R. Spalding, Corps Engrs., U. S. A., on Nov. 21, for removal of wreck "Chatham" at entrance of St. John's River. The contract has been awarded to JOHNSTON & VIRDEN, Lewis, Del., at $29,500.

SUBSURFACE DRAINS.—New Orleans, La.—Contracts for subsurface drains have been awarded by the city as follows: Installing subsurface drainage in connection with paving of Erato St., to RICHARD BROCK, at $41,104; in Jeannette St., from Carrollton Ave. to Audubon, to JOSEPH A. CRAVEN & CO., at $17,561; Seventh St., from Prytania to St. Charles Aves., to the BARBER ASPHALT CO., $4,515; in Soniat St., from Coliseum to Magazine Sts., to RICHARD BROCK, $8,024.

ROCK.—New Orleans, La.—Bids were received as follows on Nov. 5 by Capt. R. R. Ralston, Corps Engrs., U. S. A., for about 13,000 tons of rock for New Orleans Harbor; (a) railroad cars at New Orleans Harbor; (b) U. S. barges; (c) own barges: C. C. Huthmacker, Ill., (c) $2.75 per ton; A. E. Massey, New Orleans, La., (b) $72.57; Peter Sakold and L. F. Alexander, Biloxi, Miss., and New Orleans, La., (b) $2.31; F. A. Daniels, New Orleans, (b), $2.60; A. J. TERRELL, (a) $1.90 (awarded contract); (b) $2.65; W. C. Spotswood, Mobile, Ala., (a) $2.40; (b) $2.75.

RETAINING WALL.—Memphis, Tenn.—T. A. GARVIN has been awarded a contract by the city for the construction of a large concrete retaining wall back of St. Joseph's Hospital. The wall will be about 20 ft. in height, 100 ft. long and three ft. in depth.

DREDGING.—Cleveland, Ohio.—Bids will be received until 10 a. m., Dec. 17, by Col. John Hillis, Corps Engrs., U. S. A., Cleveland, for dredging Sandusky Harbor, Ohio.

*REMOVING DIKE, DREDGING.—Cincinnati, Ohio.—Bids were received on Nov. 23, by Maj. John C. Oakes, Corps Engrs., U. S. A., for removing Sand Creek dike and dredging in the Ohio River about 1¼ miles below Ravenswood, W. Va: (a) 1,485 lin. ft. of dike removal: (b) 23,000 cu. yds. of channel dredging; (c) totals: Monongahela & Western Dredging Co., Pittsburg, Pa., (a) $4.50; (b) 19.5 cts.; (c) $11,167. Sheridan-Kirk Contract Co., Cincinnati, (a) $12; (b) 40 cts.; (c) $27,020. Ohio River Contract Co., Evansville, Ind., (a) $10; (b) 30 cts.; (c) $21,750.

DOCK.—Cleveland, Ohio.—The contract for the construction of a dock here for the Erie R. R. Co. has been awarded to the GREAT LAKES DREDGE & DOCK CO., Cuyahoga Bldg., Cleveland.

ELIMINATION OF GRADE-CROSSINGS.—Cleveland, Ohio.—Bids were opened on Nov. 16 for furnishing material and eliminating grade-crossings of the Pennsylvania and Wheeling & Lake Erie R. R., Dunham Road, in Bedford Township, by the construction of an overhead bridge across the railroads on Dunham Road, between Granger Road and Bedford Road. The lowest bids follow: Substructure, T. B. Husband, 3706 East 71st St., Cleveland; superstructure, Riverside Bridge Co., Martins Ferry, Ohio.

STOCK YARDS.—Toledo, Ohio.—New stock yards will be located in East Toledo. John Zehner, Pres. Zehner Bros. Packing Co., Toledo, is interested.

RACE TRACK.—Mishawaka, Ind.—The South Bend & Mishawaka Fair Association has decided to ask for bids for the construction of a modern race track and other improvements on the fair grounds. The association expects to expend $50,000 for improvements.

DITCH.—Rensselaer, Ind.—W. Frank Osburn, Comr. of Drains, will receive bids until 1 p. m., Dec. 10, for the construction of the Jungles-Davis ditch in Jasper County.

DREDGE WORK.—Morocco, Ind.—Bids will be received until Dec. 3, by William H. Kessler, Supt., Morocco, for 206,000 cu. yds. of dredge work in Newton County, Ind.

DRAINAGE.—Jefferson, Ind.—Bids are asked until noon, Dec. 6 by the Boards of Supervisors of Greene and Carroll Counties for the construction of Joint Drainage District No. 61 in Greene County and No. 41 in Carroll County.

PARK, ETC.—Frankfort, Ind.—Bonds have been sold for building and improvement of a city park and park buildings.

SWITCH-BOARD.—Peru, Ind.—See item under Buildings.

LUMBER.—Rock Island, Ill.—Bids will be received by the Commanding Officer, Rock Island Arsenal, Rock Island, until Dec. 2, for furnishing green felloe blanks as follows: 1,005 pieces for 56-in. wheel and 2,345 pieces for 60-in. wheel; also air-seasoned stock, 1,005 pieces for 56-in. wheel and 2,345 pieces for 60-in. wheel.

DRAINAGE DITCHES.—Wheaton, Ill.—A number of new drainage ditches and improvements of existing ditches are planned in this vicinity. These plans have been proposed for the old ditch from Wheaton to the Du Page River at Winfield, five miles distant. It may be cleaned and enlarged by dredging; concrete pipe drain may be laid and the ditch filled in over it; or a smaller pipe may be laid for ordinary drainage and a small ditch left above it to provide for freshets and floods. Estimated cost, $6,000 for the first plan; $50,000 for the second plan. The surveys and estimates have been made by A. L. Webster, County Surv.

LUMBER.—Rock Island, Ill.—Bids will be received by the Commanding Officer, Rock Island Arsenal, Rock Island, until Dec. 3, for furnishing 46,000 ft. of white oak and 46,000 ft. of hickory logs.

DRAINAGE.—Marinette, Wis.—Bids have been received for draining the Peshtigo and Marinette marsh and rejected as excessive. New bids will be received before the spring.

DITCHES.—Clarinda, Iowa.—The county will spend about $150,000 for the construction of three ditches, in connection with the straightening of the Nodaway River. A. S. Van Sandt, Clarinda, is Engr.

DRAINAGE DITCH.—Council Bluffs, Iowa.—The County Supervisors on Nov. 16 authorized the asking of bids for the construction of the Nishnabotna drainage ditch. About eleven miles of ditch will be constructed. Estimated cost, $97,000.

*BREAKWATER.—Duluth, Minn.—Bids were received as follows on Nov. 23 by Lieut.-Col. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, for the construction of a rubble mound breakwater at Superior Entry, Wis.: (a) for quarry run of stone, 57,200 tons, delivered in place in the breakwater, per ton of 2,000 lbs.; (b) for stone weighing not less than 10 tons each, 30,800 tons, delivered in place, per ton of 2,000 lbs.: Great Lakes Dredge & Dock Co., Chicago, Ill., (a) $1.65; (b) $1.65; total, $145,200 (recommended for award); A. G. Osmon, Duluth, (a) $1.25; (b) $2.70; total, $154,660. Buffalo Ddedging Co., Buffalo, N. Y., (a) $2; (b) $2.50; total, $191,400.

CRIB AND EMBANKMENT.—Duluth, Minn.—Bids have been received as follows by Lieut.-Col. Graham D. Fitch, Corps Engrs., U. S. A., Duluth, for building pierhead crib and riprap embankment for same at Ashland, Wis.: Alexander Sang, $11,162; same bidder, $7,874 (leaving out bearing piles and strengthening crib with more bulkheads). The first bid has been recommended for rejection and the second bid for acceptance.

FLOOD PROTECTION.—Kansas City, Kan.—Callahan Bros., who have the contract for flood protection work along the Kaw River, noted on Nov. 17, have awarded the contract for the tools, supplies and equipment to be used on the contract to the CONTRACTORS' SUPPLY & EQUIPMENT CO., 1645 Wazee St., Denver, Colo. This company, it is reported, is now in the market for the following: Three elevator graders, 48 dump wagons, 36 wheelers, 60 drag scrapers, eight plows, three concrete mixers, 12,000 lin. ft. of piling, 120,000 ft. of ½-in. 7-strand No. 11 wire cable, 250,000 ft. ½-in. cable clamps, 900,000 sq. ft. of wire mesh, 10,000 ft. of oak or yellow pine timber, 5,000 ft. of ⅜-in. galvanized steel cable, one carload of nails, 4,000 ft. of ¾-in. deformed galvanized steel bars, 2,000 lbs. of ¼-in. bolts and rivets, 5,000 ft. of ⅞-in. 6 × 25 flattened strand wire rope, 10,000 ft. of ¾-in. 6 × 25 flattened strand wire rope, 3,000 ft. of ⅞-in. 6 × 19 round strand wire rope, and 5,000 ft. of ¾-in. 6 × 19 round strand wire rope.

DRAINAGE.—Wharton, Tex.—Bonds for $350,000 for drainage purposes have been voted by Wharton County. About 125,000 acres wil be drained, the project including the widening of Tres Palachios Creek to 60 ft. and extending it.

LEVEE WORK.—Allenfarm, Tex.—Bids for the construction of about four miles of levee and the completion of eight miles of levee partially constructed, located in Brazos Bottom, south portion of Brazos County, were received on Nov. 19, as follows, by the Commissioners of Brazos County Improvement District No. 1, at Terrell's store, Allenfarm; Roach & Stansell, Memphis, Tenn., $28,443; R. L. LEONARD, 1768 Monroe Ave., Memphis, Tenn., $24,900 (awarded contract); T. M. Esken, Bay City, Tex., $25,482. The work will require 176,800 cu. yds. of embankment. T. R. Batte, Jr., is Engr., Stewart Bldg., Houston.

COLD STORAGE AND ICE PLANT.—Fort Sill, Okla.—Bids will be received until 10 a. m., Dec. 15, for installing a cold storage and ice-plant in the power-house, new artillery post, Fort Sill. Specifications, blue prints and further information will be furnished on application. Capt. David L. Stone, U. S. A., is Construct. Q. M., U. S. A.

OIL STORAGE HOUSE.—Bremerton, Wash.—Bids are asked until 11 a. m., Jan. 21, by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for an oil storage house at the navy yard, Puget Sound, Wash.

DREDGING.—Seattle, Wash.—Bids will be received by Maj. C. W. Kutz, Corps. Engrs., U. S. A., Seattle, until noon, Dec. 14, for dredging Willaps River and Harbor, Wash.

ROCK.—Oakland, Cal.—Bids will be received by the Board of Public Works until 10 a. m., Dec. 14, for furnishing and placing of rock portion of a proposed rock and earth embankment in the Key Route Basin, city of Oakland. Frank R. Thompson is Clk.

EXTENSION OF DIKE.—Vallejo, Cal.—The contract for the extension of the dike at the U. S. Navy Yard at Mare Island, was awarded on Nov. 26 to the THOMPSON BRIDGE CO., 103 Main St., San Francisco, Cal., at $102,300. Bids were opened by the Bureau of Yards and Docks, Washington, D. C., on Nov. 5. List of bidders noted on Nov. 10.

STEEL LOCKERS.—Los Angeles, Cal.—Bids will be received until Dec. 8 by T. J. McGonigle, Purchasing Clk., Bd. of Education, for 225 steel lockers, to be installed in the Los Angeles High School.

RIVER IMPROVEMENT.—Sacramento, Cal.—On Nov. 18 the citizens voted to spend $75,000 for the improvement of the Sacramento River. George N. Randle is City Engr.

STEEL WIRE.—San Diego, Cal.—The F. O. Engstrom Co. has awarded HAZARD, GOULD & CO., San Diego, the contract for 700 tons of steel wire to be used in concrete work on the new Spreckels Theatre, at about $30,000.

SPRINKLING SYSTEM, ELEVATORS.—Los Angeles, Cal.—The W. H. [illegible] Estate has awarded the contract to the MECHANICAL INSTALLATION CO., San Francisco, for the installation of a sprinkler system in a 6-story building at 28 Los Angeles St., at $10,500. Morgan, Walls & Morgan, Archs., Story Bldg. The LLEWELLYN IRON WORKS, Los Angeles, have been awarded a contract for installing the six electric-connected freight elevators in the same building.

TUNNEL.—Los Angeles, Cal.—The Finance Committee of the City Council has reported in favor of constructing the Hill St. tunnel, between First and Temple Sts. The tunnel is to parallel the present Los Angeles Pacific tube. Estimated cost, between $125,000 and $135,000, the greater part of which is to be borne by the property owners in the assessment district. Homer Hamlin is City Engr.

DRAINAGE, ETC.—Los Angeles, Cal.—Dessery & West, Union Trust Bldg., are preparing plans and surveys for drainage and reclamation on Broome Ranch in Ventura County, to consist of 24,000 acres. The land has been leased by the American Sugar Co., which will expend about $10,000 in reclamation work, to consist of a series of open ditches and tide gates.

CHANNEL, DRY DOCK.—Montreal, Que.—Plans are being considered by the city for the construction of a 35-ft. channel to accommodate the largest ocean liners and the city will attempt to obtain from the Government the right to build a dry dock capable of receiving ships of 25,000 tons or more.

SAND, CEMENT, ETC.—Toronto, Ont.—Bids will be received until Dec. 6 by G. R. Geary, Mayor and Chn. Bd. of Control, for supplies for the year ending Dec. 31, 1911, including sand, cement, crushed stone, paving bricks, rubble stone, granite boulders, street signs, asphalt, granite, paving blocks, c.-i. pipe special castings, hydrants, lead pipe, iron and steel, lumber, sewer pipe, sewer brick, lumber.

BUOY STEAMER.—Ottawa, Ont.—Bids will be received until Jan. 4 by Alexander Johnston, Deputy Minister of Marine and Fisheries, Ottawa, for the construction of a twin-screw buoy steamer for the St. Lawrence River: length between perpendiculars, 170 ft.; breadth, 31 ft. 6 ins.; depth, 15 ft. 6 ins.; draft, 10 ft. 6 ins.; speed, eleven knots per hour.

DRY DOCK.—Roche Point, B. C.—The Vancouver Dry Dock & Ship Building Co. will construct a large dry dock costing $1,214,154. According to the terms of agreement with the Dominion Government, work will start within six months and be completed by Dec. 1, 1912. L. Thompson is Pres., and Frank Bennett, Jr., Secy., both of Vancouver, B. C.

(Continued on page 265.)

CONTRACT PRICES.

(* *Denotes that this work is advertised in Engineering News.*)

SEWERAGE SYSTEM.—Keyport, N. J.—Bids were received Nov. 17 by Clyde Potts, Consulting Engineer, 30 Church St., New York, N. Y., for sewers and sewage disposal works at Keyport, N. J., from: (A) Harrison Construction Co., Newark, N. J.; (B) Jersey Paving Corporation, Newark, N. J.; (C) United Paving Co., Atlantic City, N. J.; (D) Michael A. Dody, Brooklyn, N. Y.; (F) Ludwig Batt, South Orange, N. J.; (F) Johann Jensen, Perth Amboy, N. J.; (G) D. M. Rosser, Wilkes-Barre, Pa.; (H) J. B. O'Rourke Co., Boston, Mass.; (I) Field-Barker & Underwood, Philadelphia, Pa.; (J) P. J. Monohan, South Amboy, N. J.; (K) Mele & Bruno, Newark, N. J.; (L) Leo F. Kelly, Brooklyn, N. Y. The itemized bids follow.

SEWERS AND SEWAGE DISPOSAL WORKS, KEYPORT, N. J.

	A	B	C	D	E	F	G	H	I	J	K	L
5,000 lin. ft. 8-in. pipe, depth less than 6 ft.	$0.37	$0.57	$0.35	$0.41	$0.50	$0.50	$0.60	$0.56	$0.50	$0.70	$0.60	$0.80
7,800 lin. ft. 8-in. pipe, depth 6 to 8 ft.	.48	.60	.49	.42	.58	.60	.70	.63	.55	.73	.74	.90
3,200 lin. ft. 8-in. pipe, depth 8 to 10 ft.	.60	.62	.61	.45	.70	.70	.80	.69	.70	.75	.87	1.05
4,100 lin. ft. 8-in. pipe, depth 10 to 12 ft.	.75	.83	.77	49	.92	.85	.95	.95	1.20	.85	1.00	1.25
1,150 lin. ft. 8-in. pipe, depth 12 to 14 ft.	1.10	1.10	1.26	.55	1.35	1.10	1.15	1.35	1.75	1.00	1.10	1.42
—— lin. ft. 8-in. pipe, depth 14 to 16 ft.	2.00	1.25	1.75	.65	1.50	1.40	1.25	2.50	2.35	1.20	1.35	1.55
2,200 lin. ft. 10-in. pipe, depth less than 6 ft.	.44	.57	.46	.48	.55	.60	.70	.65	.53	.81	.85	.90
4,000 lin. ft. 10-in. pipe, depth 6 to 8 ft.	.55	.60	.57	.49	.65	.70	.85	.75	.60	.86	.95	1.10
3,100 lin. ft. 10-in. pipe, depth 8 to 10 ft.	.67	.75	.69	.53	.73	.80	1.00	.95	.80	.90	.95	1.12
1,900 lin. ft. 10-in. pipe, depth 10 to 12 ft.	.82	.85	1.05	.58	1.15	1.00	1.25	1.15	1.25	1.00	1.10	1.32
1,000 lin. ft. 10-in. pipe, depth 12 to 14 ft.	1.20	1.25	1.33	.65	1.40	1.25	1.50	1.40	1.85	1.15	1.25	1.50
135 lin. ft. 10-in. pipe, depth 14 to 16 ft.	2.00	1.60	1.60	.75	1.65	1.50	1.80	2.50	2.50	1.35	2.50	1.70
185 lin. ft. 12-in. pipe, depth less than 6 ft.	.52	.80	.55	.58	.65	.75	.90	.75	.70	.93	.97	1.00
275 lin. ft. 12-in. pipe, depth 6 to 8 ft.	.63	.85	.70	.69	.80	.85	1.05	.85	.75	.98	.97	1.15
750 lin. ft. 12-in. pipe, depth 8 to 10 ft.	.75	.90	.84	.65	1.10	1.00	1.20	1.00	1.00	1.02	.97	1.20
50 lin. ft. 12-in. pipe, depth 10 to 12 ft.	1.00	1.35	1.00	.70	1.35	1.20	1.50	1.50	1.50	1.20	1.[illegible]	1.42
50 lin. ft. 12-in. pipe, depth 12 to 14 ft.	1.50	1.75	1.44	.75	1.80	1.45	2.00	2.50	2.25	1.35	1.4[illegible]	1.65
345 lin. ft. 15-in. pipe, depth less than 6 ft.	.70	.90	.75	.69	.80	.90	1.00	1.00	.80	1.01	[illegible]	1.25
245 lin. ft. 15-in. pipe, depth 6 to 8 ft.	.90	1.27	.89	.75	1.10	1.05	1.25	1.20	.85	1.05	1.[illegible]	1.35
25 lin. ft. 15-in. pipe, depth 8 to 10 ft.	1.25	1.70	.98	.80	1.30	1.25	1.50	1.35	1.10	1.10	2.[illegible]	1.50
25 lin. ft. 15-in. pipe, depth 10 to 12 ft.	1.75	2.06	1.17	.90	1.60	1.50	1.80	1.55	1.60	1.30	2.[illegible]	1.80
50 lin. ft. 15-in. pipe, depth 12 to 14 ft.	2.40	2.50	1.61	1.00	2.00	1.80	1.80	2.50	2.35	1.55	2.[illegible]	1.85
182 manholes, depth 10 ft. and under	38.00	40.00	38.00	39.00	30.00	30.00	40.00	45.00	60.00	50.00	41.[illegible]	50.00
—— manholes, per ft. over 10 ft.	3.50	4.00	8.50	3.00	5.00	3.00	4.00	5.00	6.00	1.25	3.[illegible]	2.50
4 siphon chambers, 10 ft and under	50.00	65.00	65.00	60.00	80.00	50.00	65.00	60.00	90.00	75.00	100.[illegible]	75.00
—— ft. ¾-in. g.-i. pipe to flushing manholes	1.50	.30	2.00	1.50	.85	.70	.50	.50	.30	.65	.95	.60
6,495 ft. 6-in. c.-i. pipe	.90	.75	.82	1.09	.68	1.20	.65	1.50	1.20	1.32	1.[illegible]	1.42
375 ft. 12-in. c.-i. outfall pipe	2.75	2.25	4.70	6.50	2.75	2.75	3.00	3.00	4.00	3.25	3.[illegible]	2.50
30 tons c.-i. pipe	62.50	35.00	37.15	59.00	31.00	35.00	35.00	50.00	32.00	50.00	4[illegible]	75.00
10 M. ft. lumber B. M.	35.00	35.00	40.00	17.50	35.00	30.00	40.00	20.00	20.00	35.00	40.[illegible]	35.00
—— M. ft. lumber B. M. for cradles	40.00	37.00	45.00	39.00	38.00	40.00	40.00	40.00	50.00	60.00	40.[illegible]	32.00
—— cu. yds. extra concrete	7.00	8.00	9.00	5.70	9.50	9.00	8.00	7.00	6.50	10.00	1[illegible]	7.00
Sedimentation and sterilization, complete	6,700.00	7,200.00	9,500.00	10,890.00	8,960.00	8,960.00	6,500.00	9,000.00	12,000.00	12,000.00	11,0[illegible]	9,190.00
Pump and engine for disposal works	850.00	1,200.00	1,220.00	1,475.00	1,000.00	1,000.00	1,200.00	1,050.00	550.00	1,000.00	1,30[illegible]	900.00
Cedar St. pumping station	5,875.00	5,500.00	5,300.00	7,475.00	5,380.00	5,380.00	5,500.00	6,500.00	6,000.00	7,000.00	7,50[illegible]	7,675.00
Florence Ave. pumping station	5,875.00	5,500.00	5,300.00	6,875.00	4,914.00	4,914.00	6,000.00	6,000.00	5,600.00	6,500.00	7,30[illegible]	6,980.00
—— flap valves	10.00	10.00	15.00	23.00	10.00	5.00	18.00	30.00	4.00	12.00	20.[illegible]	8.00
35 lampholes	10.00	7.00	9.00	9.00	9.00	8.00	7.50	20.00	7.00	8.75	25.[illegible]	10.50
—— lin. ft. 5-in. house connections	.50	.35	.90	.30	.60	.25	.20	.50	.25	.50	.50	.50
1,100 ft. c.-i. pipe	1.25	1.30	2.35	1.98	1.90	1.70	.95	2.00	2.00	2.15	2.75	2.25
Totals	$68,463	$72,374	$72,758	$73,799	$74,127	$77,043	$80,194	$88,261	$89,037	$94,214	$98,[illegible]03	$106,648

BARGE CANAL.—Albany, N. Y.—The item prices of the bids received by F. C. Stevens, Supt. Pub. Wks., Nov. 22, for Barge Canal Contract No. 27A, located at Fort Edward and providing for completing the work left unfinished under the original Contract No. 27 held by the Kinser Construction Co., from (A) Engineer's estimate; (B) HOLLER & SHEPARD, Ellwanger & Barry Bldg., Rochester, N. Y., (awarded contract), were:

BARGE CANAL CONTRACT NO. 27A.

		A.	B.
	Clearing	$125.00	$125.00
1,35[illegible]	cu. yds. grubbing	.30	.33
182,00[illegible]	cu. yds. excavation from spoil banks	.18	.198
360,0[illegible]	cu. yds. all other excavation	.40	.44
[illegible]	M. ft. B. M. sheeting and bracing	40.00	44.00
161,9[illegible]	cu. yds. forming embankment	.15	.16½
3,9[illegible]	cu. yds. gravel lining	1.50	1.65
2[illegible]	M. ft. B. M. sawed lumber (yellow pine or douglas fir)	50.00	55.00
[illegible]	M. ft. B. M. yellow pine in lock gates	100.00	100.00
0.[illegible]	M. ft. B. M. white oak	100.00	100.00
880	pile foundation piles, 15 ft. long	3.75	4.12
1,050	pile foundation piles, 20 ft. long	5.00	5.50
74	M. ft. B. M. sheet piling	40.00	44.00
13,040	cu. yds. second-class concrete	7.00	7.70
1,070	cu. yds. reinforced concrete	10.00	11.00
10,000	sq. ft. finishing concrete surfaces	.20	.21
14	cu. yds. masonry bridge coping	20.00	20.00
27,360	cu. yds. wash wall	2.00	2.20
540	sq. yds. second-class stone paving	1.75	1.75
220	cu. yds. third-class riprap	2.00	2.20
40	lin. ft. 15-in. vitrified pipe	.50	.50
188,200	lbs. structural steel	.05	.05½
65,000	lbs. metal reinforcement	.04	.044
225,200	lbs. cast-iron pipe	.03	.033
40,600	lbs. iron castings	.03	.033
380	sq. yds. wooden pavement	3.00	3.00
5,260	lin. ft. wooden fencing	.20	.22
265	lin. ft. lattice railing	2.00	2.00
	For removing three old bridges	150.00	150.00
	For maintaining traffic	2,550.00	2,5[illegible]0.00
	Sluice gate complete with hoist and standard	500.00	500.00
	Lowering Argyle St. bridge superstructure	200.00	200.00
	Maintaining traffic diversion	300.00	300.00
	Deduct price to be paid for buildings in place	1.00	1.50
	Total	$409,455	$449,499

BARGE CANAL.—Albany, N. Y.—The item prices of the bids received by F. C. Stevens, Supt. Pub. Wks., Nov. 22, for Barge Canal Contract No. 37, providing for the dredging of the Oswego River between Fulton and Oswego, were: (A) Engr's estimate; (B) AMERICAN PIPE & CONSTRUCTION CO., 112 N. Broad St., Philadelphia, Pa. (awarded contract); (C) S. Pearson & Son, Inc., 507 Fifth Ave., New York.

DREDGING OSWEGO RIVER, BARGE CANAL.

		A.	B.	C.
	Clearing, lump sum	$1,000.00	$1,000.00	$1,000.00
954,000	cu. yds. excavation	1.19	1.74	1.43
175	M. ft. B. M. sheeting and bracing	55.00	45.00	55.00
3,000	lin. ft. round timber bracing	.20	.20	.20
20,000	sq. ft. channeling	.40	.48	.35
10,800	cu. yds. forming embankment	.15	.18	.14
100	cu. yds. lining	1.50	1.50	1.45
100	cu. yds. puddle	1.50	1.50	1.40
47	M. ft. B. M. sawed lumber	55.00	45.00	57.50
17	M. ft. B. M. white oak lumber in lock gates	150.00	100.00	170.00
9,000	lin. ft. foundation piles	.40	.30	.37
46	M. ft. B. M. wooden sheet piling	55.00	45.00	63.00
8,000	sq. ft. steel sheet piling	1.50	1.00	1.20
75,980	cu. yds. second-class concrete	7.50	6.50	8.23
3,500	cu. yds. wash wall	2.25	2.00	3.50
100	sq. yds. second-class stone paving	2.00	2.00	1.70
200	cu. yds. first-class riprap	3.00	3.00	3.60
200	cu. yds. second-class riprap	2.75	2.75	3.50
500	cu. yds. third-class riprap	2.50	2.50	3.50
750	cu. yds. fourth-class riprap	2.00	2.00	3.50
378,800	lbs. structural steel	.05	.04	.04¾
104,000	lbs. metal reinforcement	.03½	.02½	.03¼
18,000	lbs. castings, plain	.03½	.03½	.03¾
51,900	lbs. iron castings, machined	.05	.05	.05
333,000	lbs. metal in lock gates	.05½	.04¾	.06¼
167,500	lbs. metal in buffer beams	.06	.05	.07¼
67,500	lbs. metal in lock valves	.09	.09	.11
18	gate hoists, Class A	400.00	400.00	400.00
24	gate hoists, Class B	325.00	325.00	325.00
5,000	lin. ft. fiber ducts	.10	.10	.16
3,800	lin. ft. drilling bolt holes in rock	.60	.40	.45
1	field office	300.00	500.00	300.00
2	storehouses	850.00	1,000.00	850.00
	Cofferdams, pumping, bailing and draining	138,000.00	38,000.00	330,000.00
	For maintaining highway traffic	100.00	100.00	100.00
	For maintaining navigathion	500.00	500.00	500.00
20	for removing buildings	50.00	100.00	50.00
	For removal of bridge superstructure	100.00	300.00	100.00
	Totals	$1,992,220	$2,323,999	$2,479,505

BARGE CANAL.—Albany, N. Y.—The item of prices of the bids received by F. C. Stevens, Supt. Pub. Wrks., Nov. 22, for Barge Canal Contract No. 82, providing for the construction of new highway bridge superstructures over the Erie Canal, in Monroe County, were: (A) Engineer's estimate; (B) Lupfer & Remick, Ellicott Sq., Buffalo, N. Y.; (C) M. Fitzgerald, Hoosick Falls, N. Y.; (D) GROTON BRIDGE COMPANY, Groton, N. Y. (awarded contract).

HIGHWAY BRIDGE, BARGE CANAL.

		A	B	C	D
475,000	lbs. structural steel	$0.045	$0.049	$0.0475	$0.0485
11	M. ft. B. M. lumber (yellow pine or Douglas fir)	55.00	55.00	60.00	55.00
1,425	sq. yds. wooden pavement, 3¾ ins. thick	3.00	3.00	3.25	3.00
500	lin. ft. lattice railing	1.75	1.75	2.00	1.65
	Totals	$27,235	$29,135	$28,974	$28,842

MISCELLANEOUS CONTRACTS.

(Continued from page 264.)

BUOY DEPOT.—Prince Rupert, B. C.—Bids will be received until Jan. 3, by Alexander Johnston, Deputy Minister of Marine and Fisheries, Dept. of Marine and Fisheries, Ottawa, Ont., for the construction of a buoy depot at Prince Rupert, including the erection of a reinforced concrete wharf, timber approach trestle, power-house with chimney, buoy shed, stores, offices and dwellings; also the installation of drainage and water systems. Plans, specifications and articles of agreement may be seen and forms of proposal procured at the Department of Marine and Fisheries, Ottawa, at the office of the Agent of the Department of Marine and Fisheries, Victoria, B. C., Halifax, N. S., St. John, N. B., Quebec and Montreal, at the post-office, Prince Rupert, and at the Custom House, Winnipeg, Man. Only lump sum bids on the proposal form prepared by the Department, will be considered.

WHARF. — Barrington Cove, N. S. — The contract for the construction of a wharf here has been awarded by the Department of Public Works, R. C. Desrochers, Secy., Ottawa, Ont., to C. B. DOBSON, Sydney, C. B., at $29,900.

U. S. POSSESSIONS.

DREDGE BUCKETS, ETC. — Panama. — Bids will be received until 10.30 a. m., Dec. 5, by Capt. F. C. Boggs, Corps Engrs., U. S. A., General Purchasing Officer, Isthmian Canal Comn., Washington, D. C., for dredge buckets, locomotive tires, wire cloth, spring wire rail benders, valves, cocks, pipe fittings, etc., as per circular No. 612.

BRIDGE. — Panama. — Lieut. Col. H. F. Hodges, Lieut. Col. D. D. Gaillard, H. H. Rousseau, C. E., J. A. Smith, and Lieut. F. Mears have been appointed a committee to make investigations and submit plans and estimates for the construction of a permanent bridge across Culebra Cut, Panama.

DREDGED CHANNEL. — Panama. — The plans for the dredged channel to the reinforced concrete lumber dock, which is to be constructed at the Pacific entrance to the Panama Canal, near the site of the present sand dock, have been changed so as to provide for a channel 450 ft. broad throughout. The original plan was for a channel 400 ft. broad at the entrance and 300 ft. opposite the sand dock. The ordinary lumber ship which enters Balboa would have to be towed stern first to the dock throughout this channel, a distance of 2,700 ft. The 450-ft. channel will give room for economical dredging, headroom for ships to pass congested points, and sufficient space for any but the largest ships entering the port to turn.

*DAMS AND CANAL.—Porto Rico.—Bids will be received at the office of the Commissioners of the Interior of Porto Rico, San Juan, until 2 p. m., Jan. 3, for the construction of: (1) Carite dam and appurtenant structures, containing about 150,000 cu. meters of earth and loose rock, the estimated cost of which is about $190,000; (2) Guayabal dam and appurtenant structures, containing about 73,500 cu. meters of concrete masonry and 82,000 cu. meters of excavation, the estimated cost of which is about $550,000; (3) Patillas canal and appurtenant structures, including about 32,000 cu. meters of open-cut excavation, 2,060 lin. ft. of tunnels, 2,500 lin. ft. of flumes, 600 lin. ft. of siphons, and 100 bridges, the estimated cost of which is about $70,000. Plans and specifications may be obtained from the office of O. W. Beardsley, Ch. Engr., Irrigation Service, or from John A. Wilson, Comr. of the Interior, San Juan, or from the Bureau of Insular Affairs, Washington, D. C. A deposit of $2 is required for each set of plans, which will be refunded upon the return of the plans upon or prior to the date set for opening the bids.

FOREIGN CONTRACTS.

(To insure prompt attention, letters on consular business should be addressed to The American Consul at ———, ———. Such letters are opened and attended to by whoever may be in charge of the office. If addressed to the consul, personally, letters are forwarded to him, unopened, should he be absent, and a delay thus intervenes. if, in the meantime, he should have gone out of office, the matter may wholly escape attention.)

GOVERNMENT BULIDINGS.—Formosa.—Samuel C. Reat, Consul at Tamsui, has stated that the government of Formosa intends to erect within the next few years new government buildings costing $1,250,000 gold. The appropriation has passed the Imperial Diet.

RAILWAY STATION.—West Indies.—We are advised that Frame & Co., Purchasing Agents., for a railway company in the West Indies, have received an inquiry for the construction of a 2-story ferro-concrete railway station. A general specification will be supplied on application to the above-named company.

Readers' Wants

If you are in the market for material, equipment or supplies, and fail to find it in our advertising pages, send us full particulars, and we will gladly put you in touch with the right parties.

FILES AND FILE MACHINERY.—We are requested by S. G. Cazort, Lamar, Ark., to supply names of manufacturers of round disk files or machinery to manufacture same.

CAR DUMPING MACHINERY.—John Hunter, Ch. Engr., Union Electric Light & Power Co., St. Louis, Mo., desires to get in touch with manufacturers of car dumping machinery.

CONTRACTORS' EQUIPMENT.—We are advised that the J. E. Carroll Sand Co., Buffalo, N. Y., is in the market for a small steam shovel, a locomotive crane and a revolving and swinging derrick.

CONCRETE FENCE POST MACHINERY.—We are requested to supply the names of manufacturers of concrete fence post machinery to A. M. Shaw, Engr., Phillips Land Co., Hibernia Bank Bldg., New Orleans, La.

SEWER BRUSHES.—H. R. Segoine, C. E., Livingston Manor Corpn, New Brunswick, N. J., writes us that he desires to secure information and prices on wire brushes for sewer cleaning.

EXAMINATIONS.

INSPECTOR OF CARPENTRY AND MASONRY.—New York, N. Y.—Applications will be received from Nov. 21 until Dec. 6 for the position of Inspector of Carpentry and Masonry. The examination will be held Dec. 29 at 10 a. m. The subjects and weights of the examination are as follows: Technical, 6 points; experience, 4 points. A mark of 75% on technical and 70% on all. Candidates must be familiar with construction and able to read building plans. They must have had at least five years' practical experience as builders, architects, masons or carpenters. The salary is from $1,200 to $1,50 0a year. The minimum age is 21 years. There are no vacancies in this department at present.

ASSISTANT PHYSIOLOGIST IN PLANT NUTRITION.—Washington, D. C.—The U. S. Civil Service Commission announces an examination on Dec. 30, to secure eligibles from which to make certification to fill a vacancy in the position of Assistant Physiologist In Plant Nutrition, $1,200 a year, Bureau of Plant Industry, Department of Agriculture, and vacancies requiring similar qualifications as they may occur, unless it shall be decided in the interest of the service to fill the vacancy by reinstatement, transfer, or promotion. The examination will consist of the subjects mentioned below: General education and training, 20 points; special training in general organic chemistry and botany, including plant physiology, 40 points; training and experience in plant nutrition, 20 points; thesis of 1,000 words on some phase of investigation conducted by the applicant, 20 points. Applicants must have reached their 20th birthday, but not their 40th birthday. Examination form 304.

CHIEF INSPECTOR.—Boston, Mass.—An examination will be held Dec. 20 for Chief Inspector, Exterior Division, Wire Department. This examination is held to fill one vacancy, salary $2,000 a year, and similar vacancies as they may occur in future. The examination will include the following subjects: Training and experience, letter or report writing, arithmetic, knowledge of overhead and underground construction and maintenance of the same, including erection of poles and fixtures, overhead wiring, construction of conduits and manholes, handling of cables, etc. The technical questions will presume acquaintance with the "National Electrical Code" and a general knowledge of the electrical systems used in Boston. Only citizens of the United States who have been residents of Massachusetts for the past year, and of Boston for the six months last past, have a right to apply. Applications should be filed at once. Blank applications can be obtained by applying to Warren P. Dudley, Secy., Civil Service Commission, State House, Boston, and, when filled out, should be filed in the office of the Commission. In order to receive a notice to appear at any of the above-scheduled examinations, an applicant should have his application on file at least ten days before the date set for holding the examination.

INDUSTRIAL NOTES.

EXTENSIONS AND THIRD TRACKING of the elevated railways in New York will probably be approved by the Public Service Commission, as follows: Second Ave. Elevated: Completion of the third track from City Hall station to 129th St.; Queen County extension: Construction of a two-track extension from Second Ave. Elevated across Queensboro Bridge to the Plaza; Third Ave. Elevated: Completion of the third track from Pearl and Chambers Sts. to about 147th St.; Becker Ave. extension: Construction of the Third Ave. line from Pelham Ave., through Webster Ave. to Becker Ave.; Ninth Ave. Elevated: Completion of the third track from Rector St. to 155th St.; Jerome Ave. extension: Construction of a two and three-track elevated from 149th St. and Eighth Ave. across McCoombs Dam Bridge to 162d St. and River Ave. to Jerome Ave and 149th St.

THE CONSTRUCTION OUTLAY of the United States Steel Corporation since its organization has amounted to $445,614,000, and there is an unexpended balance of $57,000,000, making a total of over $500,000,000, says "The Wall Street Journal." "On Jan. 1, 1910, the corporation had a unexpended balance on authorization for additional property extensions, construction and extraordinary replacements of $75,500,000. Of that amount a balance of $19,000,000 was for uncompleted construction work at Gary, Ind. New construction appropriations this year will amount to approximately $25,000,000, and extraordinary replacements, $12,000,000. Actual expenditures for construction and replacements will probably aggregate $55,000,000, so at the close of this year the corporation will still have an unexpended balance for new construction, etc., of approximately $57,000,000. With the steel capacity of the country considerably in excess of consumptive requirements, it stands to reason that the Steel Corporation will spend less for new plants, extensions, etc., in 1911 than in former years. Even if it makes no appropriations for new construction next year and spends $40,000,000 of its reserve funds for that purpose it will still have a balance at the end of 1911 of approximately $17,000,000. That amount has been put back into the property since organization, in addition to unexpended surplus which goes to make up a portion of the company's current assets. It is safe to assume that the corporation, in various ways, including the excess value of bonds and purchase money obligations retired over new securities issued has added close to $550,000,000 value to the property since organization. The corporation at time of organization estimated its ore reserves at 7,500,000,000 tons. Since then the ore reserves on the original land have been increased to 1,200,000,000, or 400,000,000 tons. Even at a valuation of 50 cents a ton this would mean an increase in the value of visible ore supplies of $200,000,000. The corporation has also spent since organization $260,000,000 for ordinary repairs. Including the latter item, an increase of $200,000,000 in the value of ore reserves and the amount expended or authorized for new construcstruction and extraordinary repairs, makes a total of over $960,000,000."

WHAT IS THE MATTER WITH BUSINESS, is the title of the leading article in the December number of "American Industries," from which the following extracts are taken:

"To-day business is not good; it is only fair; and the country is not prosperous; it is only doing as well as circumstances permit. There is no calamity pending, no panic in sight, nothing so menacing that people need become unduly alarmed, but conditions are unsatisfactory, and they can and should be improved.

"The proof that present business conditions are unsatisfactory is found in the annual reports just received from the members of the National Association of Manufacturers. Each year 'American Industries,' the magazine of the National Association of Manufacturers, sends a printed form to the 3,000 members asking these questions:

"Improvement in sales, and improvement in collections during the past twelve months; present trade conditions of the industry, and probabilities in the industry for the coming year. Each manufacturer is also asked for suggestions which may help prosperity.

"Business, and that means practically the country, is suffering from several ills. These can tentatively be classified as (1) national irritation, (2) speculation, (3) internal dissension, and (4) lack of confidence. The first, national irritation, which has affected all business alike, arises from an undue, unnecessary and harmful political agitation. In other words, business has been harassed, bothered and distracted by political agitators who, to further personal ambition, or for other reasons, have kept the country in a turmoil for months.

Another cause for this national irritation which has worked such commercial unrest and injury is the failure of men of affairs and national leaders to remove the tariff from political influence and control. This is the opinion, at least, of a majority of those members of the National Association of Manufacturers who replied to the circular requesting information. There is absolutely no doubt that one of the potent causes of business agitation and continual uncertainty in this country is the tariff problem. The recent election proved it, and every day adds strength to the statement. The problem must be settled and our business interests are becoming unanimous in realizing that the only practical and satisfactory solution is the tariff commission form of investigation. In passing it may be well to understand that nowhere is the need of an independent tariff commission more clearly recognized than among the manufacturers who are popularly supposed to be the actual beneficiaries of high protection."

In the lines of industry of particular interest to engineers and contractors the replies received showed that brick and allied products were in better demand than a year ago, but collections were less satisfactory, but that prospects were good for an increase next year. In cement general conditions were not as good. Sellers of paving materials reported business only slightly improved, compared with last year, but the consensus of opinion was that business next near would be excellent. The unsatisfactory condition of the iron and steel trade was especially marked, and the prospects for 1911 were likewise considered unsatisfactory. The electrical industry was stated to be far better than a year ago, and there were good prospects for improvement next year. In boilers and engines the present condition and the outlook was almost as bright.

TRADE PUBLICATIONS.

DIPPER DREDGES.—The Fairbanks Steam Shovel Co., Marion, Ohio. Paper; 9¼ x 6¼ ins.; pp. 64; illustrated.

A large part of this pamphlet is composed of full-page half-tone engravings of the company's dredges in use on drainage work, for which they are specially designed. In some of these the hull is equipped with vertical speeds, while others have inclined speeds seated on the ground on each side of the excavation. Other machines included are a dry-land "walking" machine (which is moved forward by inclined side speeds), a steam shovel mounted on traction wheels, a locomotive crane and a steam traction engine. Thore are also some particulars of the engines and equipment of the dredges, a table of users of these machines, and an earth-work table for ditch excavation.

LADDER SPECIALTIES. James L. Taylor Mfg. Co., Bloomfield, N. J. Folder; 3½ x 6½ ins.; illustrated.

Elevators, hooks, jacks and locks for attachment to ladders are very briefly described in this folder. The ladder elevator is the most interesting. This is an attachment which can be raised and lowered on a ladder as a guide. It is used principally by house painters and carpenters. Two of these elevators supporting a ladder or horizontal platform are designed to take the place of the time-honored roof hooks with suspended ladder, ordinarily used in painting the sides of houses. The brackets are made of steel, and are capable of holding several men. They are raised and lowered by means of a block and tackle.

GRAPHITE PRODUCTS.—Joseph Dixon Crucible Co., Jersey City, N. J. Stiff paper; 5½ × 8½ ins.; pp. 38; illustrated.

The object of this booklet is to bring before the mechanical departments of railroads various graphite products which are useful in the maintenance of railway equipment. Graphite as a lubricant is fully set forth and directions given for its use in air brakes, valves and air pumps on locomotives. It is also used to save wear on the center plates of car trucks; for decreasing resistance and wear of rails on curves; and for coating bridges, cars and other steel structures when prepared as a silica-graphite paint. It can be used in the form of a pipe joint compound in the place of red lead, and in the form of a paste for finishing and polishing the front ends of locomotives. Belt dressing, crucibles, foundry facings and numerous other uses are found for this valuable material.

HOISTS FOR CONSTRUCTION WORK.—Thomas Elevator Co., 20-22 South Hoyne Ave., Chicago. Paper; 7½ × 10½ ins.; pp. 64; illustrated.

These hoists are for foundation and building construction work, the latter operating platform elevators. They are operated by hand, by horses, by steam engines or by electric motors. The power hoists are complete self-contained units, and the electric hoists are of special advantage for work in cities owing to their freedom from noise and dirt. One of the special designs is an eight-spool hoist for the independent handling of cables for eight caissons or foundation wells. Electric motors and controllers and a silent chain drive are shown also. Some testimonials are given from contractors, who have used the company's machines, and there are views of a number of large buildings in the construction of which these hoists have been used.

POWER PUMPING MACHINERY.—The Deming Co., Salem, Ohio. Paper; 6¾ x 9¼ ins. pp. 189; illustrated.

The types of pumps to which special attention is given are triplex plunger pumps and deep-well pumps. Other types included are piston, centrifugal and rotary pumps. All these are shown in great varieties of size and for various purposes. They are operated directly by steam or gas engines and electric motors or by belting. There are also pumps driven by water wheels. Other special apparatus includes air compressors, compressor and vacuum pumps, working heads and working barrels for deep wells, diaphragm and force pumps, and an electrically controlled hydro-pneumatic tank pumping system for the water supply of residences or country estates where an elevated tank is not used. About 30 pages are devoted to views of various installations of the company's pumps and to miscellaneous useful information. There are numerous tables of sizes, capacities and prices.

LIST OF CONTRACTS PENDING.

Plans and Specifications on File.

The following plans (P.) and Specifications (S.) are on file (for reference only unless otherwise noted) at the office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.		Noted in issue of
12- 3	Coal & Ash handling apparatus, Norfolk, Va. (S)-	10-27
12- 3	Boilers, etc., New Orleans, La. (S)	10-27
12- 3*	Dredging, Newport, R. I. (S.)	11- 3
12- 3	Boilers, wiring, etc., Tiburson, Cal.	11-17
12-10	Pier, Bremerton, Wash. (S.)	11-10
12-15*	Diversion work, Klamath Falls, Ore. (S)	10-20
12-17	Paving, Norfolk, Va. (S.)	12- 1
12-22	Quay wall, Key West, Fla. (S.)	11-24
12-22	Steel caissons, New York (S.)	11-10
1- 7	Dredging, Hawaii (U. S. Poss.) (S)	10-27

Light, Heat and Power Plants.

Bids close.		Noted in isue of
12- 3	Boilers, wiring, etc., Tiburson, Cal.	11-17
12- 3	Boilers, etc., New Orleans, La.	10-27
12- 3	Electrical supplies, Tiburon, Cal.	12- 1
12- 3	Heating and vent. system, N. Y.	12- 1
12- 6	Heating, New York, N. Y.	11-24
12- 7	Wire and cables, Winnipeg, Man.	11- 3
12- 7	Street lighting, Rome, N. Y.	12- 1
12- 8	Furnishing pumping machinery, Denison, Tex.	11-24
12- 8	Electric lights, New York	12- 1
12- 8	Installing lights, Ventura, Cal.	12- 1
12- 9*	Heating, New York	11-17
12-10	Electric light fixtures, Carrington, N. Dak.	11-24
12-12	Furnishing misc. supplies, National Soldiers Home, Va.	11-24
12-12	Franchise, Newport, Cal.	11- 3
12-12	Electrical supplies, Toronto, Ont.	12- 1
12-12	Electrical equip., New York, N. Y.	12- 1
12-12	Lighting, New York, N. Y.	12- 1
12-13	Wiring, Washington, D. C.	11-17
12-14	Electrical work, Brooklyn, N. Y.	12- 1
12-15	Motor generator sets, Winnipeg, Man.	11-24
12-19	Building and miscl. supplies, Lexington, Mo.	11-24
12-19*	Motors, compressors, etc., Plainfield, N. J.	12- 1
12-22	Wiring and gas piping system, Jefferson, Mo.	12- 1
12-23*	Heating and vent. system, Oklahoma City, Okla.	12- 1
12-24	Street lighting, Boston, Mass.	11-17
12-29	Power plant, Sherbrooke, Que.	12- 1

Bridges.

12- 2	Bridge, Indianapolis, Ind	11-17
12- 2	Bridge work, New York	11-24
12- 2	Culvert, Indianapolis, Ind.	12- 1
12- 5	Bridge, Rock Island, Ill.	11-24
12- 5	Bridge, Perry, Fla.	12- 1
12- 5	Trestle bridge, Stockton, Cal.	12- 1
12- 6	Bridges, San Diego, Cal.	11-24
12- 6	Bridge, Madera, Cal.	12- 1
12- 6	Bridges, Chehalis, Wash.	12- 1
12- 7	Bridge, Aberdeen, Wash.	11-24
12- 7	Bridge, Virginia City, Mont.	11-17
12- 8	Bridges, Shreveport, La.	11-24
12-17	Bridge work, Cleveland, Ohio	12- 1
12-19	Bridge, Jeffersonville, Ohio	11-24
12-20	Bridge, Norwalk, Conn.	11-17
12-21*	Fender piers, Beaufort, N. C.	11-24
12-22	Bridge, Youngstown, Ohio	12- 1
1- 5	Bridge, Edwardsport, Ind.	11-24

Buildings.

12- 2	Warehouse, Baltimore, Md.	12- 1
12- 5*	Post-office, Santa Cruz, Cal.	11- 3
12- 5	Courthouse, Sacramento, Cal.	11-17
12- 5*	High schools, Toledo, Ohio	11- 3
12- 5	Public building, Rigaud, Que.	12- 1
12- 6	Masonic buildings, Elizabethtown, Pa.	11-24
12- 6	Post-office additions, St. Henri, Que.	12- 1
12- 7	High school, San Francisco, Cal.	11-24
12- 7	Library building, Columbus, O.	11-24
12- 7	Armory, Pomeroy, Ohio	11-17
12- 7	Post office, etc., Ellsworth, Me.	11- 3
12- 8*	Post-office, Granite City, Ill.	11- 3
12- 8	Post-office, Carbondale, Pa.	11- 3
12-12	Church, Port Arthur, Ont.	12- 1
12-14*	Post-office, Lead, S. Dak.	11-10
12-15*	Repair shop, Fort Monroe, Va. (Mfg. Pl.)	11-17
12-15*	Changes at post-office, etc., Montgomery, Ala.	11-17
12-15*	Prison, Wingdale, N. Y.	11-17
12-15*	Ice plant, etc., Fort Sill, Okla. (Mfg. Pl.).	11-24
12-15	Schools, Monrovia, Cal.	12- 1
12-19	Post-office, Lexington, Mo.	11-17
12-22	Stores, Boston, Mass.	11-24
12-23*	Heating, etc., Oklahoma City, Okla.	11-24
12-27	Post-office, Missoula, Mont.	11-24
12-30	Home, Alert Bay, B. C.	12- 1
1-21	Oil storage house, Bremerton, Wash. (S.)	12- 1
1-21	Oil storage house, Bremerton, Wash.	12- 1
1-26*	Building, Washington, D. C.	12- 1
1-31	Court-house, Onida, S. Dak.	10-20
4-15	Plans, Havana, Cuba	10-20

Water-Works.

Bids close.		Noted in issue of
12- 2*	Engine, Atlantic City, N. J.	11-24
12- 2	Water pipe, Troy, N. Y.	11-24
12- 3	Sublaterals, North Yakima, Wash.	11-17
12- 5	Equipment, Niagara Falls, N. Y.	11-24
12- 5	Well, Kenyon, Minn.	11-24
12- 5	Water pipe, etc., Los Angeles, Cal.	11-24
12- 5	Water pipe, Bellaire, Ohio	12- 1
12- 6	Water-works, Windsor, Mo.	11-24
12- 6	Tank and tower, Pima, Ariz.	11-10
12- 7	Water-works, Timmonsville, S. C.	11-17
12-12*	Dam and reservoir, Pittsfield, Mass.	11-17
12-12	Pumping engine, Cleveland, Ohio.	12- 1
12-13*	Pumps, Seattle, Wash.	11-17
12-13	Water-wks. apparatus, New York.	11-24
12-13	Fire hydrants, Portland, Ore.	12- 1
12-15*	Diversion work, Klamath Falls, Ore.	10-20
12-15*	W.-Wks, Fayetteville, N. C.	11-24
12-16	Reservoir and well, Fort Crook, Neb.	12- 1
12-17	W.-wks. supplies, Carthage, Ohio.	12- 1
12-20	Water main, Cleveland, Ohio	11-24
12-20	Water-works, Cimarron, N. Mex.	11-24
12-20	Watermains, Port Townsend, Wash.	12- 1
12-22*	Water-wks., Oriskany Falls, N.Y.	12- 1
1-19	Filters, etc., Grand Rapids, Mich.	12- 1
2- 1	Water pipe, sewer pipe, Souris, Man.	12- 1

Sewers.

12- 1	Sewers, New York	12- 1
12- 1	Sewers, C. I., Reno, Okla.	12- 1
12- 1	Sewers, Long Island, L. I., N. Y.	12- 1
12- 1	Sewers, Boston, Mass.	12- 1
12- 2	Sewers, Boston. Mass.	12- 2
12- 2*	Sewers, Birmingham, Ala.	12- 1
12- 3	Sewer, Decatur, Ind.	11-24
12- 5	Sewers, Cincinnati, Ohio	12- 1
12- 5	Sewers, Santa Paula, Cal.	12- 1
12- 5	Sewers, Boston, Mass.	12- 1
12- 5	Sewers, Boston, Mass.	12- 1
12- 6	Sewers, Boston, Mass.	12- 1
12- 7	Sewers, Brooklyn, N. Y.	11-24
12- 7	Sewer, Timmonsville, S. C.	11-17
12- 7	Sewers, New York	12- 1
12-13	Sewers, New York, N. Y.	12- 1
12-14	Sewers, New York, N. Y.	12- 1
12-15	Sewer materials, Orange, Cal.	12- 1
12-19	Sewers, Huntington, W. Va.	11-24
12-23	Sewer, Olympia, Wash.	11-24
1- 6	Sewer, Buffalo, Wyo.	11-24

Streets and Roads.

12- 1	Grading, etc., Cleveland, Ohio	12- 1
12- 2	Road, Cincinnati, Ohio	11-17
12- 2	Curbs, etc., Cincinnati, Ohio	12- 1
12- 5	Highway, Jeffersonville, Ind.	11-17
12- 5	Gravel roal, Liberty, Ind.	11-17
12- 5	Road, Greencastle, Ind.	11-17
12- 5	Road, Williamsport, Ind	11-17
12- 5	Sidewalks, etc., Linden Heights, Ohio	11-17
12- 5	Paving, Galveston, Tex.	11-24
12- 5	Gravel road, Pine Bluff.	11-24
12- 5	Paving, Jefferson City, Mo.	11-24
12- 5	Grading, Jeannette, Pa.	12- 1
12- 5	Paving, Montgomery, Ala.	12- 1
12- 5	Grading, curbing, etc., Oceanpark, Cal.	12- 1
12- 5	Grading, Toronto, Ont.	12- 1
12- 6	Gravel roads, Logansport, Ind.	11-24
12- 6	Gravel roads, Wabash, Ind.	11-24
12- 6	Gravel roads, Marion, Ind.	11-24
12- 6	Gravel roads, Peru, Ind.	11-24
12- 6	Roads, Rensselaer, Ind.	11-17
12- 6	Grading, etc., New York	12- 1
12- 6	Grading, etc., Crawfordsville, Ind.	12- 1
12- 6	Paving, Woodburn, Ore.	12- 1
12- 6	Roadmaking materials, Toronto, Ont.	12- 1
12- 7	Gravel roads, Kokomo, Ind.	11-24
12- 7	Roads, etc., Fort St. Philip, La.	11-24
12- 7	Grading, etc., New York	11-24
12- 7	Paving, Norfolk, Va.	12- 1
12- 8	Resurfacing, New York	11-24
12- 9	Gravel road, Lafayette, Ind.	11-24
12- 9	Road impvts., Cincinnati, Ohio.	12- 1
12-13	Paving, Crookston, Minn.	11- 3
12-13	Grading, etc., New York, N. Y.	12- 1
12-19	Gravel road, Williamsport, Ind.	12- 1
12-20	Sidewalk, Cleveland, Ohio	11-24
12-20	Paving, Tulsa, Okla.	12- 1
12-22	Road, Logansport, Ind.	11-24
12-22*	Paving, Wilmington, N. C.	11-24

Miscellaneous.

Bids close.		Noted in issue of
12- 2	Moving paving stone, New York.	11-24
12- 2	Repairs to ferryboat, New York.	11-24
12- 2*	Wharf, Richmond, Va.	11-10
12- 2	Flagstaff, Fort Sam Houston, Tex.	11-17
12- 2	Lumber, Rock Island, Ill.	12- 1
12- 3	Dredging, Newport, R. I.	11- 3
12- 3	Coal and ash handling apparatus, Norfolk, Va.	10-27
12- 3	Dredge work, Morocco, Ind.	12- 1
12- 3	Lumber, Rock Island, Ill.	12- 1
12- 5	Dredging, Wilmington, Del.	11-10
12- 5	Vacuum cleaning system, Columbus, Ohio	11-17
12- 5	Levee, Lancaster, Ohio.	11-17
12- 5	Landing pier, Stratford, Que.	11-17
12- 5	Fire apparatus, New York.	11-24
12- 5	Subway, Savannah, Ga.	11-24
12- 5	Locomotive, etc., Fort Leavenworth, Kan.	11-24
12- 5	Breakwater, Chapel Cove, N. S.	11-24
12- 5	Seawall, New York	11-24
12- 5	Gravel, sand, etc., New York	11-24
12- 5	Street flushing machine, Vallejo, Cal.	11-24
12- 5	Dredge buckets, Panama (U. S. Poss.)	12- 1
12- 6	Retaining wall, New York	11-24
12- 6	Fire apparatus, Los Angeles, Cal.	11-24
12- 6	Ditch, Carroll, Minn.	11-24
12- 6	Wharf, St. Joseph de Letellier, Que	11-17
12- 6	Drains, Sac City, Iowa	11-10
12- 6	Paving blocks, New York	11-24
12- 6	Broken stone, road roller, N. Y.	12- 1
12- 6	Sand, cement, etc., Toronto, Ont.	12- 1
12- 6	Drainage, Jefferson, Ind.	12- 1
12- 6	Machinery, Centralia, Wash.	12- 1
12- 7	Oil storage system, Rock Island, Ill	11-17
12- 7	Dredging, New York	11-24
12- 8	Ditch, Marshall, Minn.	11-17
12- 8	Coping, fence New York	11-24
12- 8	Iron railings, New York	12- 1
12- 8	Comfort station, New York	12- 1
12- 8	Steel lockers, Los Angeles, Cal.	12- 1
12- 9	Drainage canal, Howard, Miss.	11-17
12- 9*	Removing rock ledge, Cincinnati, Ohio.	11-10
12- 9	Lumber, Seattle, Wash.	11-24
12-10	Pier, Bremerton, Wash.	11-10
12-10	Quay wall, Key West, Fla.	11-10
12-10*	Dredging, Wilmington, Del.	11-17
12-10	Street sweeping, etc., Evansville, Ind. (Garbage)	12- 1
12-10	Ditch, Rensselaer, Ind.	12- 1
12-12	Dredging rock removal, New York.	11-10
12-12	Fire protection, iron railings, New York, N. Y.	12- 1
12-13	(1911) Copper mine, Turkey (Foreign)	10- 6
12-14	Rock, Oakland, Cal.	12- 1
12-14	Dredging, Seattle, Wash.	12- 1
12-15	Dry-dock, etc., Argentina (Foreign).	11-10
12-15	Cold storage and ice plant, Fort Sill, Okla.	12- 1
12-17*	Dredging, Providence, R. I.	11-17
12-17	Jetty work, Wilmington, Del.	12- 1
12-17	Dredging, Cleveland, Ohio	12- 1
12-19*	Dredging, New York	11-24
12-19*	Leaves for Weirs, Wheeling, W. Va.	11-24
12-19	Revenue cutters, Washington, D. C.	12- 1
12-21*	Dredging, New Haven, Conn.	11-24
12-21*	Sand and gravel, Montgomery, Ala.	11-24
12-22	Quay wall, Key West, Fla.	11-24
12-22	Lock gates, etc., Wheeling, W. Va.	11-24
12-22*	Pier work, Detroit, Mich.	11-24
12-22	Steel caissons, New York	11-10
12-22	Quay wall, Key West, Fla.	11-24
12-22	Sale of vessel, Washington, D. C.	12- 1
12-23	Fabricated steel, rivets, Los Angeles, Cal.	11-24
12-27	Furnaces, etc (garbage) N. Y.	11-24
12-28*	Removing wreck, Wilmington, Del.	12- 1
1- 3	Buoy depot Prince Rupert, B. C.	12- 1
1- 3*	Dams and canal, Porto Rico U. S. Poss.)	12- 1
1- 4	Buoy steamer, Ottawa, Ont.	12- 1
1- 7	Dredging, Hawaii (U. S. Poss).	10-27
1- 9	Tramway plant and equipment, England (Foreign)	11-17
1 -17	Metal superstructures for bridges, Uruguay, (Foreign)	11-17

Examinations.

Applications filed.		Noted in issue of
12- 6	Inspector of Carpentry and Masonry, New York, N. Y.	12- 1
12- 7	Preparator of Fossils, Washington, D. C.	11- 3
12- 7	Scientific Assistant in Soil Bacteriology, and Scientific assistant in Tobacco Chemistry, Wash., D. C.	11-10
12- 7	Mineral Examiner, Wash, D. C.	11-10
12- 7	Cartographic Draftsman, Wash., D. C.	11-10
12- 7	Fortification Draftsman, Wash., D. C.	11-10
12-7, 8 and 9	Inspector of Mech. & Elec. Engineering, Washington, D. C.	11-10
12- 7	Superintendent of Construction, Washington, D. C.	11-17
12- 8	Gas Meter Tester, Albany, N. Y.	11-17
12- 8	Assistant Electrical Engineer, Albany, N. Y.	11-17
12- 8	Chemist, Albany, N. Y.	11-17
12-17	Assistant in Dairy Bacteriology, and Assistant in Dairy Chemistry, Washington, D. C.	11-17
12-20	Chief Inspector, Boston, Mass.	12- 1
12-28	Industrial teacher, Washington, D. C.	11-10
12-30	Assistant Physiologist in Plant Nutrition, Wash., D. C.	12- 1
1- 4	Chemist in Forest Products, Washington, D. C.	11- 3
1- 4	Mechanical Draftsman, Washington, D. C.	11-17
1- 4	Metallurgical Chemist and Assayer, Washington, D. C.	11-17
1- 4	Physical Laboratory Helper, Washington, D. C.	11-17
1- 4	Mechanical and Chart Draftsman, Washington, D. C.	11-17

CURRENT PRICES OF ENGINEERING MATERIALS

Supplement to ENGINEERING NEWS, appearing in the First Issue of Each Month. New York, December 1, 1910.

PRICE CHANGES AND THE BUSINESS OUTLOOK.

Any improvement in the business situation is chiefly regarding fundamental conditions rather than an actual increase in the volume of business offering.

Car loadings are larger than a year ago, despite the fact that the heavy coal traffic, which ordinarily sets in at this time of the year, has not been felt and farmers in the Middle West are refusing to sell their grain on account of low prices. Bank clearings outside of the large speculative centers are slightly larger than a year ago. With all this there is an unmistakable note of pessimism uttered by men of experience who voice the opinion that business will be curtailed during the coming year.

Business men in general, and particularly those in control of large enterprises, have apparently been so intoxicated with the succession of years of plenty that nothing short of a continual boom will satisfy them. The financial and industrial crisis which occurred in 1907 was severe, but its effects were wiped out in a remarkably short time. It is not often realized that in some lines of industry the volume of business has been greater during 1910 than during the preceding year.

The prevalence of extravagance; the purchase of automobiles and other luxuries with borrowed money; the widespread speculation in real estate and in worthless stocks—all these have diverted enormous sums from legitimate investments and have so reduced the available supply of capital as to make it hard to finance honest enterprises save at high rates of interest. This is the chief feature in the present situation which gives ground for anxiety.

Nevertheless it cannot be said that any real occasion for alarm exists. Large crops have been harvested and the farmer will have plenty of money to spend, while the reduction in price of some food staples benefit the whole population as much as an increase in wages.

Price changes during the month have been unimportant. The supply of iron and steel products has been more closely regulated to meet the demand. The cement market is stronger. At the same time, the inquiry for this product is not large. The makers of electric machinery report an increased volume of business, and the automobile industry has somewhat recovered. Labor is more easily obtained for all kinds of work.

Much important engineering work is in prospect for the coming year. In New York City the Triborough subway will call for an expenditure of upwards of $80,000,000. The deep pressure tunnel under the city for the New York Board of Water Supply will be advertised in the near future, and will involve an expenditure approaching $15,000,000. In New England the New York, New Haven & Hartford R. R. is almost weekly announcing a consolidation, or some ambitious scheme, for improving transportation facilities in its territory. The activity of the New Haven interest is apparent from the Hudson River to the Canadian border. In Chicago extensive grade crossing elimination schemes are in process and the city is likewise reconstructing its water supply system. The Southern Pacific Ry. has just obtained a concession enabling it to build to Mexico City. The State of New York is now asking bids for the construction of over 18 miles of the Barge Canal and as many miles on the Cayuga and Seneca Canal.

LABOR.

The supply exceeds the demand for all kinds of labor. Pick and shovel men are anxious for work and whereas good Italian laborers demanded $1.70 a day a month ago they will now work for $1.60 wherever work is dry, for wet work $1.75 is demanded. The contractors on the Barge Canal have been able to obtain all the workmen needed for the last six weeks. The contractors having large construction jobs in the middle West are also well supplied with laborers willing to work. Factory help is easily obtained; good machinists are more plentiful than a month ago, and mediocre men who have had some experience in handling machine tools are to be found in great numbers. This of course is the time of the year when labor becomes more plentiful, but it is admittedly harder to get work of this kind than twelve months ago.

There has been a curious succession of strikes in New York City. The express drivers and their helpers were out about two weeks, tying up a great amount of outgoing and incoming merchandise. The strikers who gained the popular sympathy obtained important concessions from their employers. Succeeding this was the ill-advised strike of the taxi-cab drivers. Its only grievance was a closed shop. This is apparently fizzling out. In Chicago there is a strike which has now lasted nearly two months, among the garment workers. It is said that as the result of this strike at least 100,000 people were out of work, entailing the loss of something like $300,000 daily. The employers were willing to arbitrate questions of hours, wages and discipline, but refused to concede to a closed shop under any circumstances. The strikers are willing to consider wages, hours and discipline, but remain firm for the closed shop.

Railway trainmen are obtaining higher pay. Concessions and matter of wages are apparently being granted by the railways with little hesitation, and the demands keep increasing instead of diminishing.

CEMENT, LIME AND BRICK.

PORTLAND CEMENT.—The agreement as to price, which will expire in the near future, may and may not be renewed. It is probably immaterial whether it is renewed or not, for, with the acquisition of the Atlas by the strong financial power and the probable purchase or consolidation of other cement mills, there will not be the necessity for any price agreement. It is expected that the price will be advanced at last 10 cts. between now and the first of January, that price to hold firm until Spring, when another advance will be made depending on conditions. The cement manufacturers are undoubtedly very well satisfied with their present position. The following quotations are named at the various cities: Boston, $1.62; Buffalo, N. Y., $1.60; New York, $1.53; Philadelphia, $1.50, and Atlanta, Ga., $1.35 net. On the Pacific Coast, $2.20 to $2.50 per bbl. is named. Eastern prices represent a quotation of about 90 cts. per bbl. in bulk at the mill.

Imported cement is in light demand at $2.42 for Alsen's and $2.43 for Dyckerhoff's.

NATURAL CEMENT.—The demand is very light and makers of cement have practically suspended operations for the year. The price is unchanged at 80 cts. per bbl. in New York, and $1.05 per bbl. in Boston.

LIME.—The following prices are for lots of 500 bbls., delivered in New York City: State common, per bbl., 75 cts.; Rockland-Rockport common, 92 cts.; Rockland-Rockport special, 300 lbs., $1.37; finished, 300 lbs., $1.47; finishing, 200 lbs., $1.02, and 350 lbs., $1.62; New Milford, $1.30.

Hydrated lime is sold at $9.00 per ton.

Adamant wall plaster is $6.00 per ton, delivered in New York Harbor.

BRICK.—The demand for brick is very limited. Prices are slightly lower, Hudson River common being $5.00; Raritan River brick are $5.25. In Boston the price is $7.00 and in Newark, N. J., $6.75.

White enameled brick are held at the unchanged price of $60 per thousand for the American size 8¾ × 2¼ in. enameled surface by 4⅛-in. bed), and $70 to $75 for the English size (9 × 3-in. enameled surface by 4½-in. bed). These prices are f. o. b. Perth Amboy.

PLASTER BLOCKS.—For large lots prices are as follows:

	Weight, lbs. per sq. ft.	Price, cts. per sq. ft.
2-in.	7	6
3-in.	8½	6½
4-in.	11	7¼

These blocks are made 32-in. long by 13½-in. wide, containing 3 sq. ft. of surface. The 2-in. blocks are solid, but the others are hollow.

Plaster boards ⅝-in. thick are 16 cts. per sq. yd.

STONE.

BLUESTONE.—The demand is light, as most of the stone now required is for finishing work. It is thought that business is duller than it was a year ago, but dealers who are looking over their books claim that the season has been a fair one, because the business has been spread over several more months than usual.

For delivery, either alongside of dock or f. o. b. cars New York City, quotations are as follows: Flagging, 6 cts. per sq. ft. per in. of thickness; flagging, 2¼ to 3-in. thick that will pass New York City specificatons, 18 to 19 cts. per sq. ft. Some concessons, however, have been made and stone of this character has sold at 17 cts.

Sewer bottoms 5 ft. sq. and 3-in. thick are sold at 25 cts. per sq. ft. Curbing, 5 × 16-in., is 40 cts. and 5 × 24-in., by 5-in. thick is 60 cts., and 6-in. thick is 65 to 70 cts. per lin. ft., 5 × 20-in. by 5-in. thick is 50 cts.

Promiscuous shapes of building and foundation stone sell at 70 to 75 cts. per sq. ft.

GRANITE.—There is little demand. Prices are without change at 40 to 45 cts. per cu. ft. for promiscuous shapes or run of quarry.

Pink Milford granite is unchanged at $1.00 per cu. ft. for promiscuous shapes.

LIMESTONE.—Prices are unchanged at 85 cts. per cu. ft., delivered alongside of dock, New York. Dressed stone is quoted at $1.25 to $1.50 per cu. ft.

Sandstone in the rough is 80 cts. to $1.00 per cu. ft.

INTERIOR STONE.—Slate flooring, 1-in. thick, can be had at 20 cts. per sq. ft. for the common or ribbed variety. Clear black sells at 35 to 40 cts., and the same price is asked for Vermont. A combination of slate and marble flooring is 30 cts. per sq. ft.

Marble floor, finished ready to lay, of Vermont marble, is 50 to 70 cts. per sq. ft.; Italian marble, 70 to 90 cts. Tennessee marble can be had at 65 cts. Ordinary stair work, such as slate steps, are quoted at 24 cts. per sq. ft.

CRUSHED STONE, SAND AND GRAVEL.

CRUSHED STONE.—Business during the last month has been very active. Contractors have been anxious to close up their work and in consequence have purchased stone freely, but more especially have specified on old contracts. In some cases the stone could not be obtained promptly, so contractors have gone to outside sellers and this has temporarily brought a higher range of quotations. In general, however, quotations are unchanged as follows:

For 1½-in. stone, 90 cts. to $1.00 a yd. is quoted; ¾-in. stone, 95 cts. to $1.10, and screenings are also sold at 95 cts. to $1.10. These prices are for full cargo lots of 500 cu. yds. delivered alongside of dock, New York City.

In Boston, 90 cts. is quoted for ¾-in., 75 cts. for 1½-in., and 65 cts. for 2½-in., all per net ton. Atlanta, Ga., $1.15 to $1.20 per net ton.

SAND.—The demand for sand is good. In fact, it is unusual for this time of the year. It was believed that prices would be reduced around Dec. 1 on account of the slackening in the demand, but the principal sellers decided to make no change in quotations until Jan. 1. At that time a reduction may go into effect. Washed sand from Long Island is quoted at 35 cts. per cu. yd. White quartz sand is 60 cts. per cu. yd., and white quartz grit, 75 cts. per cu. yd. All of these prices are for delivery alongside of dock, New York, and for full cargo lots of 500 yds.

GRAVEL.—While there is a good demand for gravel, it is not exceptional and the sellers are able to promptly supply all that is needed. It is expected that next year an increased quantity will be used irrespective of the Triborough Subway, the construction of which is still far from an assured fact. Prices will probably be reduced around Jan. 1.

Prices for December delivery are as follows: The best grades of washed gravel can be obtained at 75 cts. to 85 cts. per cu. yd. These prices are for full cargo lots of 500 yds., delivered alongside of dock, New York City.

White quartz roofing gravel is $1.25 to $1.35 per net ton.

IRON AND STEEL.

PIG IRON.—The business done in pig iron during November continued of the hand-to-mouth character, which has been noted during the previous months of this year. In some instances, prices have been slightly firmer, but not enough to cause any animation in the trade, or to make it worth while, for any of the furnaces which have gone out of blast on account of the low prices to resume operations. Toward the end of the month a better business was noted in steel-making irons, and earlier there had been numerous purchases by radiator manufacturers, which, in the aggregate, called for considerable tonnage.

The iron trade is not especially unsatisfactory, but iron and steel men seem to be dissatisfied with anything short of a veritable boom, which brings customers begging for deliveries. In each of the last 16 consecutive months the output of iron by the blast furnaces in the United States has exceeded 2,000,000 tons. In the boom times of 1906-1907 such a condition prevailed for 13 months, and yet manufacturers are now saying that business is dead. Previous to October, 1905, there had never been made in the United States 2,000,000 tons of iron in any one month. Business is not satisfactory to the manufacturer perhaps, but this is because the productive capacity has increased too rapidly. There are inquiries now out for approximately 50,000 tons of Bessemer iron.

Price changes during the month have been within narrow limits. For lots of 100 gross tons and over, f. o. b. points named, quotations are as follows: Cincinnati, Southern foundry No. 1, $14.75 to $15.25; Southern foundry No. 2, $14.25 to $14.75; Southern foundry No. 4, $13.50 to $14. In Philadelphia, Eastern Pennsylvania No. 2 foundry is $15.75 to $16; Eastern Pennsylvania No. 2 plain, $15.25 to $15.50. In Chicago, Northern foundry No. 2 is $16 to $16.50; Southern foundry No. 2 is $15.35 to $15.85. In Pittsburg, the prices of Bessemer is unchanged at $15.90, but basic is $14.15 to $14.40, an advance of 25 cts. a ton. This includes the 90 ct. freight rate from the Valley. In New York, Northern foundry No. 2X is $15.25 to $16; Southern foundry No. 2 is $15.25 to $15.75. In Birmingham, Southern foundry No. 2 is held at $11.50 to $12.

STEEL RAILS.—Some orders for rails have been released in the last fortnight, but if they are an indication of the tonnage the railroads are to give the steel mills, the outlook is not particularly promising, especially to those rail manufacturers who have within the last few years notably increased their facilities. The Erie has purchased 33,000 tons; the Norfolk & Western, 15,000 tons; the Louisville & Nashville, 30,000 tons and the new Kansas City, Mexico & Orient, 8,000 tons. It is estimated that the requirements of the Boston & Maine may be as high as 50,000 tons, owing to an unusual amount of construction to be done by this road in the New England territory.

Prices are unchanged, but the method of making quotations has been considerably varied. All rails are now sold in cents per pound, the quotation being as follows for lots of 500 tons and over: Standard sections, 50 to 100-lbs., per yard, 1.25 cts. per lb.; 40 to 45-lbs., 1.16 cts.; 30 to 35-lbs., 1.20 cts.; 16, 20 and 25 lbs., 1.21 cts., and 12-lb. rails, 1.25 cts. Relaying rails are unchanged in New York at $20.50 to $21.50 per gross ton. In Chicago, standard sections, subject to inspection, are $24 to $25 per ton.

TRACK SUPPLIES.—While business is just as unsatisfactory as it has been any time this year, it is felt that a decided change will take place in the near future. The feeling is gaining ground that the railways are not as poor as they appear to be and in any event they can economize in some other things before they begin to let their track go down.

Prices are as follows: Standard railway spikes, 4½ × 9/16-in. and larger, are 1.50 to 1.60 cts. per lb. Boat spikes and small railway spikes are 1.60 to 1.65 cts. Track bolts with square nuts are 2.40 to 2.50 cts. per lb., and angle bars, 1.50 to 1.65 cts. per lb. in Chicago and Pittsburg.

STRUCTURAL SHAPES.—There is considerable large work in prospect, notably the subways in New York, track elevation in Philadelphia, extensive improvements on the New England railways and grade crossing eliminations in Chicago. The work coming out, however, is small, and although the McClintic-Marshall Construction Co. took about 2,000 tons of bridge work last week and the American Bridge Co. about the same amount, this is small for mills of such large capacity. In Chicago quite a little structural work is held up awaiting the new building ordinance. The proposed code permits an increase from 16,000 to 18,000 pounds in the stresses on steel members and makes slight modifications in the fire-resisting requirements. This will reduce the amount of steel used and also the cost in every case. The Erie has placed orders for eight small bridges in Ohio; the New Haven has awarded contracts for 350 tons; the Boston Elevated is in the market for about 5,000 tons for its Cambridge extension. From 6,000 to 7,000 tons will be required for two new battleships that are now being built in the Brooklyn Navy Yard.

Prices are without change. The following quotations are named in cts. per lb. f. o. b. Pittsburg: I-beams and channels, 3 to 15-in., 1.40 to 1.45 cts.; over 15-in., 1.55 cts.; H-beams, over 8-in., 1.65 cts.; angles, 3 to 6-in., inclusive, 1.50 cts.; angles over 6-in., 1.55 cts.; zees, 3-in. and over 1.50 cts.; angles, channels and zees under 3-in., 1.45 base and full extras; deck beams and bulb angles, 1.75 cts.; hand rail tees, checkered and corrugated plates, 2.75 cts.

Chicago store prices in cents per lb. are as follows: Angles, 3 to 6-in., 1.80 to 1.90 cts.; over 6-in., 1.90 to 2 cts.; I-beams and channels, 1.80 to 1.90 cts. In San Francisco prices from store continue without change at 2.70 cts. base.

CAST-IRON PIPE.—The market has been dull and prices have sagged. In fact, even with the present quotations, which are from $1 to $2 per ton under those ruling a month ago it is felt that on any good order marked concessions would be made. The Brooklyn Union Gas Co. purchased during the latter part of the month about 1,400 tons of pipe, but the price was not given out and it is understood that a very close quotation was made. The decline in the New York market has been more noticeable than at any other point.

Revised quotations are as follows per net ton at the points named:

Birmingham, Ala., 4 to 6-in., $21; 8 to 12-in., $20; over 12-in., $19.

Chicago, 4-in., $27; 6 to 12-in., $26; 16-in. and larger, $25.

New York, 6-in., $22.

OLD MATERIALS.—Business is improved and the takings of scrap have been larger, but the offerings have been heavy and this has kept prices at a low level. Then, too, there was no especial demand to stimulate the scrap market, for prices of other raw materials are low. Heavy melting steel scrap is in perhaps better demand than anything else. This condition was also noted a month ago. Car wheels, which had a momentary spurt six weeks ago, have now dropped off appreciably.

Prices in New York per gross ton are as follows: Rerolling rails, $12.50 to $13; heavy melting steel scrap, $11 to $11.50; No. 1 yard wrought, $11.50 to $13; No. 1 railroad wrought, $13.50 to $14; pipes and flues, $10 to $10.50; cast borings, $6.50 to $7; machinery cast, broken up, $12 to $12.50; stove plate, $10 to $10.50.

The Chicago market continues quiet with only nominal changes. Quotations per gross ton are as follows: Rerolling rails, $15 to $15.50; heavy melting steel scrap, $12.25 to $12.75; shoveling steel, $11.75 to $12.25. For such materials as are sold by the net ton, prices are as follows: Miscellaneous railroad wrought, $11 to $12.50; machine shop turnings, $7.25 to $7.75; No. 1 cast scrap, $12.50 to $13; pipes and flues, $9 to $9.50; railroad malleable, $11.50 to $12; agricultural malleable, $10.50 to $11.

In Pittsburg, the demand seems to center on heavy steel scrap for open hearth purposes and for borings and turnings. Quotations per gross ton are as follows: Rerolling rails, $15.75 to $16; No. 1 foundry cast, $13 to $13.25; No. 2 foundry cast, $12.50 to $12.75; old grate bars, $11.25 to $11.50; car wheels, $13.75 to $14; cast borings $8 to $8.25; machine shop turnings, $8.75 to $9; bundled steel scrap, $9 to $9.50.

PLATES.—A few car orders have appeared in the market. These have not been large, but rollers of plates are in hopes that they show the way toward larger business in the near future. The improved facilities of the railways seem to be standing the strain of the heavy traffic very well, and a larger tonnage is now being moved than ever before with almost no congestion. Two new battleships are to be built in the Brooklyn Navy Yard, each of which will require 10,000 tons of plates.

Prices are unchanged at 1.40 cts. base for wide plates, although some narrow plates have been sold on a basis of 1.35. Plates ¾-in. thick, 6¼ to 100 ins. wide, 1.40 to 1.45 cts.; ¼ to 3/16-in., thick, 1.50 to 1.55 cts.; 3/16-in. and thinner, including No. 8 gage, 1.55 to 1.65 cts.; Nos. 8, 9 and 10 gage, 1.70 to 1.75 cts. All these prices are per lb. f. o. b. mill.

In Chicago store prices are 1.85 to 1.95 cts.

PILING, SHEET STEEL.—Prices are without change at 1.60 cts. per lb. f. o. b. Pittsburg.

STEEL CASTINGS.—Business is quiet. Open hearth steel castings, weighing from 100 to 500 lbs., are 3½ to 5 cts. per lb. Crucible castings, weighing from 100 to 500 lbs., are 7½ to 9 cts. per lb.

RIVETS.—Specifications on old contracts continue of fair size, but new business is light. Prices are unchanged, as follows: Structural rivets, ¾-in. and larger, 1.90 cts., base; cone head boiler rivets, ¾-in. and larger, 2 cts., base; ⅝-in. and 11/16-in. take an advance of 15 cts., and ½-in. and 9/16-in. take an advance of 50 cts. Lengths shorter than 1-in. also take an advance of 50 cts. Terms are 30 days, net cash, f. o. b. mill.

CASTINGS, GREY IRON.—The foundries which make a specialty of heavy work report very little business. The building trade is very quiet and city work has been scarce. Jobbing foundries have more work than a month ago. Building castings can be obtained at 1¾ to 2 cts. per lb. Some orders, however, have been placed as low as 1⅝ cts. Stair work is 2 to 2½ cts. per lb. Heavy footings, manhole covers and street castings are 1½ to 1¾ cts. per lb.

FREIGHT RATES.—The freight rates, on finished steel products, from the Pittsburg district, including plates, structural shapes, merchant steel and iron bars, pipe, fittings, plain and galzanized wire, nails, rivets, spikes and bolts (in kegs), black sheets (except planished), chain, etc., are as follows, in cts. per 100 lbs.: Albany, 16; Buffalo, 11; Boston, 18; Baltimore, 14½; Canandaigua, 13½; Cleveland, 10; Columbus, 12; Cincinnati, 15; Chicago, 18; Harrisburg, 14½; Louisville, 18; New York, 16; Norfolk, 20; Philadelphia, 15; Rochester, 11½; Richmond, 20; Scranton, 15; St. Louis, 23; Washington, 14½.

WIRE ROPE.—Prices are unchanged from last month. The discount to the larger trade being 42½ and 5% from list for galvanized, and 50 and 5% from list for bright. The net prices of bright wire rope are as follows:

Diameter, inches.	Price per foot: Cast steel.	Crucible steel.	Plow steel.
2¾	$1.05	$1.24	$1.46
2½	.85	1.05	1.22
2	.57	.65	.76
1¾	.44	.54	.64
1½	.32	.39	.45
1¼	.23	.28	.32
1	.15	.18	.21
¾	.10	.11	.13
⅝	.07	.09	.10
½	.06	.07	.07

ROOFING, CORRUGATED.—The demand is light and prices have declined slightly since last month. Revised quotations are as follows per 100 sq. ft. of roof surface: Carloads, Pittsburg, No. 28 painted, $1.55; No. 28 galvanized, $2.75. From store New York, No. 24 painted, $3.60; No. 24 galvanized, $4.50; No. 26 painted, $2.75; No. 26 galvanized, $3.75; No. 28 painted, $2.40; No. 28 galvanized, $3.50.

GALVANIZED SHEETS.—The American Sheet & Tin Plate Co. has again revised the prices of sheets. This is another reduction, but one that tends to confuse the buyers as the difference between the sizes has been again changed. At these quotations the market is steady, there being little or no cutting. Revised figures for carload lots from Pittsburg are as follows:

	Cts. per lb. Black.	Galvanized.
Nos. 10 and 11	1.85	2.20
Nos. 12, 13 and 14	1.90	2.30
Nos. 15, 16 and 17	1.95	2.45
Nos, 18, 19, 20 and 21	2.00	2.60
No. 22	2.05	2.60
Nos. 23 and 24	2.05	2.70
Nos. 25 and 26	2.15	2.90
No. 27	2.26	3.05
No. 28	2.20	3.20
No. 29	2.25	3.30
No. 30	2.25	3.50

Store prices Chicago are as follows:

	Cts. per lb. Black.	Galvanized.
No. 10	2.40	2.95
No. 12	2.40	
No. 14	2.45	
No. 16	2.55	3.05
Nos. 18 to 22	2.70	3.20
No. 24	2.75	3.30
No. 26	2.85	3.50
No. 27	2.95	3.65
No. 28	3.15	3.80
No. 30	3.35	4.25

MERCHANT PIPE.—The project for a pipe line from the Louisiana Gas Fields to St. Louis is again under consideration. The pipe trade is fairly active and some new business is shortly expected.

The prices that went into effect early in October are unchanged and are represented by the following discounts:

	Black.	Galvanized.
¾ to 1½-in. Butt Weld	79	69
2-in. Lap weld	76	66
2½ to 4-in. Lap weld	78	66
4½ to 12-in. Lap weld	77	67

At these discounts the net prices of pipe per ft. are as follows:

	Steel Pipe in Cts. per ft. f. o. b. Mill. Black.	Galvanized.
¾-inch	2.43	3.58
1 -inch	3.47	5.12
1¼-inch	4.74	7.00
1½-inch	5.69	8.35
2 -inch	8.65	12.20
2½-inch	12.70	19.80
3 -inch	16.60	25.60
4 -inch	23.70	36.70
5 -inch	33.40	48.00
6 -inch	43.20	62.00
7 -inch	54.00	78.00
8 -inch	65.00	93.00
9 -inch	78.00	112.00
10 -inch	92.00	132.00
11 -inch	104.00	149.00
12 -inch	114.00	162.00

TIN PLATE.—Business has been more satisfactory during the last month and the leading consumers of bright tin plate have entered their orders for next year's delivery. Prices are firm, due largely to the continued strength of the pig tin market.

Terne plates or tin plates used for roofing purposes are sold by the box of 112 sheets. Store prices in New York are without change at $8.50 per box for 20 × 28-in. I C plates with an 8-lb. coating; plates of the same size with a 15-lb. coating are $10.40; 20-lb. coating, $13 and 40-lb. coating, $16.50.

COKE.—The output of coke is practically unchanged from a month ago. The "Connellsville-Courier" computes the output in the Upper and Lower Connellsville region at 340,000 tons weekly. Prices are lower and for prompt shipments of standard makes of furnace coke $1.50 to $1.55 is quoted. On contracts for the first half of next year, $1.75 is quoted. Foundry coke is also slightly easier and 72-hr. foundry is sold at $2 to $2.10 at over for prompt shipment and $2.25 to $2.50 on contracts running through the first half of 1911.

BARS AND MERCHANT SHAPES.—The demand continues fair. Prices are steady and firm, the following being named from New York store:

	Cts. per lb.
1 to 1⅞-in. round and square	1.90
1½ to 4-in. × ⅜ to 1-in.	1.90
1½ to 4-in. × ¼ to 5/16-in.	2.10
Rods—⅝ and 11/16 round & square	2.10
Angles:	
3-in. × ¼-in. and larger	2.10
3-in. × 3/16-in. and ⅛-in.	2.35
1½ to 2½-in. × ⅛-in.	2.35
1½ to 2¾-in. × 3/16-in. & thicker	2.10
1 to 1¼ × 3/16-in.	2.20
⅞ × ⅛-in.	2.40
¾ × ⅛-in.	2.50
⅝ × ⅛-in.	3.55
½ × 3/32-in.	4.35
Tees:	
1-in.	2.65
1¼-in.	2.45
1½ × 2½ × ¼-in.	2.15
1½ × 2½ × 3/16-in.	2.35
3-in. and larger	2.15
Beams	2.10
Channels, 3-in. and larger	2.10
Bands—1½ to 6 × 3/16 to No. 8	2.35
Norway bars	3.60
Bessemer Machinery, Steel	1.90
Cast steel, base	7.00
Special cast steel, base	14.00 to 15.00

LAG SCREWS.—Quotations are without change. Cone point lag screws are sold at a discount of 75 and 10% from list. Net prices are as follows:

	Net price per 100: ¼-inch.	¾-inch.	1-inch.
3½-inch	$1.17	$2.40	$5.00
4 -inch	1.25	2.55	5.25
4½-inch	1.33	2.70	5.50
5 -inch	1.40	2.85	5.80
6 -inch	1.58	3.20	6.40
7 -inch	1.73	3.50	7.00
8 -inch	1.82	3.85	7.60
9 -inch	2.05	4.10	8.20
10 -inch	2.25	4.45	8.75
11 -inch	2.40	4.70	8.30
12 -inch	2.60	5.00	9.90

CHAIN.—The following quotations are named on chain. Prompt shipments can be made.

Prices are without change per 100 lbs. f. o. b. Pittsburg, as follows:

Sizes in inches.	Proof.	BB.	BBB.
3-16	$8.25	$9.50	$10.00
¼	5.70	6.95	7.45
5-16	4.70	5.95	6.45
⅜	4.15	5.40	5.90
7-16	3.85	5.10	5.60
½ and 9-16	3.65	4.90	5.40
⅝	3.55	4.80	5.30
¾	3.45	4.70	5.20
⅞	3.35	4.60	5.10
1	3.25	4.50	5.00
1¼ and 1⅜	3.35	4.60	5.10

Hand-Made Chain.

Size in inches.	BBB crane chain.	BBB crane, dredge hoisting or steam shovel hoisting chain.	Special "Warwick" crane, hoisting steam shovel hoisting and dredge hoisting chain.	Special "Trident" crane, steam shovel hoisting & dredge hoisting chain.
⅝	$7.95	$8.20	$9.15	$9.15
¾	7.15	7.45	8.45	8.45
⅞	7.67	6.90	7.95	....
1	6.15	6.40	7.45	....
1⅛	5.75	5.95	6.90	....
1¼	5.65	5.90	6.85	....
1⅜ to 1⅞	5.55	5.75	6.80	....

SPIRAL RIVETED PIPE.—Prices continue unchanged from the last report. The prices given below are f. o. b. factory, freight equalized, with New York City being figured at a discount of 50, 10 and 10% from list. They are for orders amounting to about $250. For large orders, of several carloads, prices are from 12½% to 20% cheaper.

Diameter in ins.	*Thickness of steel, Birmingham wire gage.	Net price per 100 ft. With bolted joints complete. Plain.	Asphalted.	Galvanized.
3	20	$21.80	$14.21	$20.70
4	18	19.76	21.48	30.74
5	18	23.40	23.70	37.14
6	16	33.05	35.76	49.73
7	16	37.58	40.76	56.82
8	16	43.17	46.80	65.00
9	16	50.06	54.10	74.22
10	14	66.42	71.08	96.15
11	14	71.20	76.57	102.24
12	14	83.75	89.15	118.32
13	14	89.67	96.55	127.98
14	14	99.14	105.51	138.85
15	14	108.05	114.89	151.92
16	14	117.53	124.82	166.58
18	12	167.43	175.95	226.44
20	12	183.79	193.30	248.39
22	12	200.48	210.64	269.21
24	12	219.92	231.07	293.90
26	10	280.26	292.41	370.78
28	10	301.32	314.89	395.37
30	10	324.81	339.15	430.64

*Made in both lighter and heavier gages at corresponding differences in price.

NAILS.—Mill orders are keeping up at a satisfactory rate but there seems to be no animation in the trade. Jobbers all over the country are only buying from hand-to-mouth, as their needs warrant.

Prices are without change, wire nails in Pittsburg being held at $1.75 base in carload lots to retailers with an advance of 10 cts. for less than carload lots. In New York wire nails are sold from store at $2 per keg. Cut nails are held at $1.65 per keg in carload lots Pittsburg, and $2 per keg from store New York. All of these prices are per 100 lbs.

WIRE.—The wire trade is very dull, the heavy demand from agricultural regions having fallen off. At the same time the outlook is good for next year, as the farmers all over the country have had a satisfactory season.

Quotations on plain wire are as follows: Carloads, annealed, $1.50; galvanized, $1.80. Less than carload lots are held at an advance of 10 cts. per 100 lbs. over these prices. Barbed wire in carload lots is $1.70 for the painted and $2 for the galvanized. An advance of 10 cts. per 100 lbs. is also charged for less than carload lots. Prices named are per 100 lbs. at mill in the Pittsburg district.

SWEDISH STEEL.—Business is quiet. Prices are without change. Drill steel, either round, hexagon or octagon, is 6 cts. per lb. for all sizes ⅝ to 2 ins. For sizes 2⅛ to 3 ins. 7 cts. is quoted and 3⅛ to 4 ins. is 7½ cts.

Hollow drill rod is held at 12½ to 15 cts. for the imported.

Anvils of Swedish steel are held at 9 to 9½ cts. per lb. They weigh from 80 to 600 lbs.

SWITCH POINTS.—The following prices are named, f. o. b. mill for switch points in lots of ten or more pair: For 60-lb. rail, 10-ft. points, $16.25; 15-ft. points, $17.50 for 70-lb. rail, 10-ft. points, $18; 15-ft. points, $25; for 80-lb. rail, 10-ft. points, $25.50; 15-ft. points, $27.75; for 90-lb. rail, 15-ft. points, $30.50; for 100-lb. rail, $33.50. All of the above are furnished with three rods, except the 10-ft. points for 60 or 70-lb. rail, which have only two.

BOLTS.—Prices are without change. The discount on common carriage bolts, to the retail trade and large consumers is 70 and 7½% from list, on bolts ⅝ × 6 ins., and smaller. The lowest price is 65 and 5% discount for larger and longer bolts. Net prices are as follows:

Length in inches.	Diameter in inches—Net price per 100. ⅜	½	¾
4	$0.74	$1.22	$2.86
5	0.83	1.36	3.15
6	0.92	1.52	3.50
7	1.22	1.65	3.75
8	1.34	1.80	4.25
9	1.45	1.95	4.50
10	1.55	2.20	4.75
12	1.75	2.40	5.25
14	1.90	2.70	5.90
15	2.05	2.85	6.25
18	2.40	3.25	7.20
20	2.60	3.50	7.75

FROGS.—For mill shipments, of ten or more, prices are as follows: Bolted frogs No. 7, for 60-lb. rail, $15; for 70-lb. rail, $16.50; for 80-lb. rail, $18; No. 8 frogs for 90-lb. rail, $21; for 100-lb. rail, $23. Plate frogs No. 7, riveted to ⅝-in. plate for 60-lb. rail, $18; for 70-lb. rail, $20; for 80-lb. rail, $21.50. No. 8 frogs bolted to a ¾-in. plate for 90-lb. rail are $25.50; for 100-lb. rail, $27.50.

REINFORCING MATERIALS.

TRIANGULAR MESH.—The demand continues good. Shipments are now being made promptly.

The following quotations are for the lots of the size named f. o. b. mill in Pittsburg district:

Style No.	Cross sec. area per ft. width.	Price per 100 sq. ft. Carload lots.	Less than carloads and more than 100 sq. ft.
4	.102	$1.03	$1.25
5	.077	.82	.99
6	.058	.65	.78
7	.041	.50	.61
23	.170	1.73	2.08
24	.142	1.48	1.80
25	.124	1.32	1.60
26	.110	1.20	1.45
27	.085	.98	1.19
28	.066	.81	.98
29	.049	.67	.81
31	.261	2.55	3.08
32	.225	2.20	2.67
33	.196	1.96	2.38
34	.146	1.51	1.82
35	.109	1.20	1.45
36	.075	.89	1.07
38	.380	3.62	4.38
39	.325	3.12	3.77
40	.283	2.74	3.30
41	.208	2.08	2.52
42	.151	1.58	1.92
43	.101	1.13	1.36

This material is made in regular widths of 18, 22, 26, 30, 34, 38, 42, 46, 50, 54 and 58 ins. Standard lengths of rolls are 150, 300 and 600 ft. Cutting to special length is charged extra.

BARS, CONCRETE REINFORCING.—Prices are barely steady. The 1.40 cts. quotation named for merchant bars is not always held. Iron bars are also easier.

The following quotations are based on a price of 1.45 cts. Pittsburg:

	Cts. per lb. Plain.	*Deformed.
¾-inch and larger	1.45 to 1.55	1.50 to 1.60
⅝-inch	1.50 to 1.60	1.55 to 1.65
½-inch	1.55 to 1.65	1.60 to 1.70
⅜-inch	1.70 to 1.80	1.75 to 1.85
¼-inch	1.95 to 2.05	2.00 to 2.10

Bar from stock Pittsburg are usually cut to the required length without extra charge. Prices are as follows:

	Cts. per lb. Plain.	*Deformed.
¾-inch and larger	1.65 to 1.75	1.75 to 1.85
⅝-inch	1.70 to 1.80	1.80 to 1.90
½-inch	1.75 to 1.85	1.85 to 1.95
⅜-inch	1.90 to 2.00	2.00 to 2.10
¼-inch	2.15 to 2.25	2.25 to 2.35

*The price of deformed bars varied according to the shape and some are held much higher than these prices.

EXPANDED LATH.—Prices are unchanged. The price for carload lots given below is f. o. b. mill Central Ohio:

Carload Lots. Price in cts. per sq. yd.

Gage.	Weight per sq. yds.	Black.	Painted.	Galvanized.
27	2¼ lbs.	11½	12¼	17½
26	2½ lbs.	12½	13¼	18½
25	2 lbs.	13½	14¼	19½
24	3.4 lbs.	14½	15¼	20½

Small Lots from New York, Store. Prices in cents per sq. yd.

Gage.	Block.	Painted.	Galvanized.
27	13	13¾	19
26	14	14¾	20
25	15	15¾	21
24	16	16¾	22

This lath is packed 9 sheets to the bundle.

DIAMOND LATH FROM STORE.

Designation.	Gage.	Weight per sq. yd.	Price. Per sq. yd. Black cts.
A	24	4 lbs.	20
A Special	24	4 lbs.	18
B	27	2.9 lbs.	16½
B Special	27	2.9 lbs.	15
B B	27	2.33 lbs.	14
Square Twist	24	4 lbs.	20
Diamond No. 24	..	3.75 lbs.	20
" No. 24 Special	...	3 lbs.	16½
" No. 26	..	2.66 lbs.	16½
" No. 26 Special	..	2.1 lbs.	14
Square Twist No. 27	..	2.75 lbs.	14½

INTERLOCKING PLATES.—For interlocking steel plates, of 24 gage black steel f. o. b. mill Central Ohio, the following prices are named:

Length.	Per 100 sq. ft. Weight.	Price Flat Sheets.
Under 4 ft.	100 lbs.	$11.00
4 to 6 ft.	160 lbs.	10.00
6 to 8 ft.	160 lbs.	9.50
8 to 10 ft.	160 lbs.	9.00
10 ft.	160 lbs.	8.50

Curved sheets are held at an advance of $1 per 100 sq. ft. over flat.

EXPANDED METAL.—Prices continue steady. The following table of prices are for small lots from the warehouse, either New York or Pittsburg. Material concessions, however, will be made for large orders:

Mesh. Ins.	Gage (Stubs).	Section in sq. in. per ft. width.	Weight, in lbs., per sq. ft.	Size of Standard Sheets in ft.	Price per sq. ft., f. o. b. New York
½	18	.209	.74	8 × 3 or 6 ft.	5.5
¾	13	.225	.80	6 × 8 or 12 ft.	6.2
1½	13	.207	.70	4 × 8 or 12 ft.	5.5
2	12	.166	.56	5 × 8 or 12 ft.	4.8
3	16	.083	.28	6 × 8 or 12 ft.	2.4
3	10	.148	.50	5.25 × 8 or 12 ft.	2.6
3	10	.178	.60	6 × 8 or 12 ft.	2.8
3	10	.267	.90	4 × 8 or 12 ft.	3.8
3	10	.356	1.20	6 × 8 or 12 ft.	5.
3	6	.400	1.38	3.5 × 8 or 12 ft.	6.2
3	6	.600	2.07	4.66 × 8 or 12 ft.	8.3
4	16	.093	.42	4.5 × 8 or 9 ft.	2.8
6	4	.245	.84	5 × 8 or 12 ft.	3.7
6	4	.368	1.26	5 × 8 or 12 ft.	5.

CLAY PRODUCTS.

SEWER PIPE.—Considering the near approach of winter the volume of business now being transacted is considered satisfactory. A slight easing in the quotations for the smaller sizes has been noted. The new discount is [illegible]7% off the list for all sizes up to and including 24-in. Other discounts are unchanged as follows: 78% for 27 and 30-in. and 7[illegible] for 33 and 36-in. At these discounts the net prices per ft. for carload lots f. o. b. factory, are as follows:

2-in.	$0.026
3-in.	.026
4-in.	.032
5-in.	.039
6-in.	.052
8-in.	.076
10-in.	.102
12-in.	.13
15-in.	.175
18-in.	.245
20-in.	.293
21-in.	.35
22-in.	.39
24-in.	.42
27-in.	.99
30-in.	1.20
33-in.	1.70
36-in.	1.89

HOLLOW WALL TILE.—Prices are very firm, and for hollow wall building tile, f. o. b. factory, Perth Amboy, N. J., are as follows:

Size.	Price per block, in cts.
4 x 12 × 12-in.	5.25
6 x 12 × 12-in.	6.6
8 x 12 × 12-in.	8.9
10 x 12 × 12-in.	10.5
12 x 12 × 12-in.	12.1

Fireproofing partition blocks are unchanged as follows:

Size.	Price per block, in cts.
2 x 12 × 12-in.	4.4
3 x 12 × 12-in.	4.4
4 x 12 × 12-in.	5.
6 x 12 × 12-in.	6.6
8 x 12 × 12-in.	8.8

These prices are for what would be considered small orders—approximately carload lots. For quantities which exceed $1,000 worth of material, concessions will be made.

DUCT TELEPHONE.—Business is fair. Small lots are sold at 4½ to 5 cts. per duct ft., but considerable concessions are made for desirable orders.

ROOFING TILE.—Prices are steady, and continue without change. The best grade of promenade roofing tile in flat blocks for high grade roofs is sold at $20 per M. for run of kiln and $30 per M. for selected. A cheaper form of tile with a smooth face can be had at $10 to $12, but it is not suitable for roof gardens. These prices are for 9 × 9 blocks f. o. b. factory. It requires 258 blocks to lay 100 sq. ft. of roof surface and, in consequence, the price per 100 sq. ft. of roof surface would be $4 to $5 for the smooth blocks; $7.82 for the run of kiln, and $10.73 for the selected.

Vitrified tile, unglazed, of the French or Spanish type, is sold, at approximately $8.50 per 100 sq. ft. of roof surface f. o. b. factory. Glass tiles are sold at 60 cts. each. It requires 183 of these for 100 sq. ft. of roofing.

FLUE LINING.—Prices continue without change. The discount from list f. o. b. mill, is 85%, delivered in New York. In small lots, they can be had at 78%. Based on a discount of 85% at the mill net prizes are as follows:

	Weight in lbs.	Price per ft.
4¼ × 8½-in.	14	$0.04¼
4¼ × 13 -in.	20	.068
4½ × 18 -in.	40	.15
6 × 12 -in.	22	.075
7 × 7 -in.	15	.053
8½ × 8½-in.	18	.068
8½ × 13 -in.	28	.098
8½ × 18 -in.	45	.135
12 × 16 -in.	45	.15
13 × 13 -in.	38	.128
13 × 18 -in.	57	.18
14 × 16 -in.	60	.165
16 × 16 -in.	65	.24
16 × 20 -in.	80	.30
18 × 20 -in.	75	.30

MILL SUPPLIES.

SHAFTING.—Business is fair. The makers of automobiles are buying more freely than in several weeks. Prices are without change carload lots being held at 55% discount from list, although some desirable orders can be placed at 55 and 5% discounts. Small lots, less than carloads, but shipped from the mill, are sold at 50% discount.

The following net prices per foot are based on the 50% discount: ¾-in., 4.15 cts.; 1-in., 7.30 cts.; 1¼-in., 11.50 cts.; 1½-in., 15 cts.; 1¾-in., 20.50 cts.; 2-in., 25.50 cts.; 2¼-in., 38.75 cts.; 2½-in., 41.75 cts.; 2¾-in., 50 cts.; 3-in., 60 cts.; 3½-in., 90 cts.; 4-in., $1.27½; 4½-in., $1.78; 5-in., $2.35; 5½-in., $3; 6-in., $3.85.

CHAIN BELTING.—Trade is very satisfactory. Prices continue unchanged.

From 3 HP. to 10 HP., 30-in. centers complete, with two sprockets, $7 to $8 per HP.; from 10 HP. to 25 HP., 36-in. centers complete, $5 to $6 per HP.; from 25 HP. to 100 HP., 60-in. centers complete, $4 to $5 per HP.; from 100 HP. to 500 HP., 72-in. centers complete, $3 to $4 per HP.

PACKING.—Prices continue without change. The following quotations are for small lots in original packages.

Asbestos wick and rope, 13 cts.; sheet rubber, 11 to 13 cts.; pure gum rubber, 40 to 45 cts.; red sheet, 40 to 50 cts. Cotton packing can be had at 16 to 25 cts.; jute at 3¼ to 3[illegible] cts., and Russian at 9 to 10 cts.

GRAPHITE LUBRICANTS.—Prices continue without change, as follows:

Engine flake graphite, 12 cts.; oiled graphite, 20 cts.; car box grease, 8 cts.; gear grease, for electric cars, 4¼ cts.; cup grease, 15 cts.; axle grease, 8½ cts.; automobile graphite grease, 16 cts.

Large consumers and jobbers can obtain considerable concessions from these figures.

BELTING.—The demand is only fair. Quotations are unchanged, the discount on rubber belting being 40% from list for the best grade; 40 and 10% for standard and 60 and 10% for competition. Leather belting is likewise without change at 55% discount for extra heavy; 60% heavy; 60 and 10% medium; 60 and 10 and 10% light; 70% shoulder, and 70 and 10% for standard.

The following net prices per ft. of rubber belting are computed at the above discounts. The price of leather belting is, as stated, unchanged from last month, and the prices may be found on page 61 of issue of Aug. 4.

Width, inches.	2-ply.	4-ply.	6-ply.	8-ply.
3	$0.16	$0.22	$0.33	....
4	.21	.30	.45	....
5	.26	.44	.55	....
6	.30	.51	.65	$0.87
7	.36	.55	.75	1.01
8	.40	.57	.87	1.15
9	.46	.64	.96	1.30
10	.51	.72	1.01	1.44
12	.60	.86	1.30	1.70
14	.72	1.01	1.53	2.01
16	.83	1.17	1.76	2.35
18	.93	1.34	2.00	2.65
20	1.04	1.49	2.25	2.98
22	1.17	1.67	2.50	3.33
24	1.30	1.85	2.76	3.70
26	1.42	2.04	3.06	4.08
28	1.58	2.22	3.33	4.45
30	1.69	2.40	3.60	4.80
34	1.94	2.79	4.16	5.54
38	2.22	3.15	4.70	6.30
42	2.46	3.50	5.30	7.00
46	2.75	3.88	5.80	7.72
50	3.02	4.25	6.40	8.50
56	3.40	4.80	7.20	9.60
60	3.67	5.20	7.80	10.40

LUBRICATING OILS.—Business is fairly satisfactory. Quotations continue without change, the following figures being named for 5-bbl. lots:

	Cts. per gal.
*Cylinder, dark	20 to 27
*Cylinder, steam, refined	14 to 22
Neutral Oils, filtered:	
Stainless white, 32 to 34 gravity	28 to 29
Lemons, 33 to 34 gravity	17 to 19
Dark, 32 gravity	15 to 18
Crank Case oil	15 to 17

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*Prices vary according to test.

HIGH SPEED STEEL.—There is a very fair demand for all kinds of high speed steel. Prices are without change at 50 to 75 cts. per lb.

COTTON WASTE.—Raw cotton continues high.

Baled waste in New York is 10 to 11 cts. per lb.

FIRE HOSE.—Prices of hose are unchanged. The standard grade of underwriters' cotton rubber-lined hose, 2⅝-in. diameter warranted, 350 lbs. pressure, is sold in 50-ft. lengths, complete with couplings, at 65 cts. per ft. Common hose, 2½-in. diameter, tested to 200 lbs. pressure, is 35 cts. per ft.

CHEMICALS.

There have been no price changes during the month. The following quotations are named for delivery in New York City for lots of fair size:

	Cts. per lb.
Nitric acid, 30°	3.87½ to 4.25
Nitric acid, 40°	4.50 to 4.87½
Sulphuric, 60°	0.90 to 1.00
Sulphuric, 66°	1.00 to 1.25
Sal Ammoniac, lump	9.25 to 9.75
Sal Ammoniac, granulated	5.87½ to 6.00
Sal Ammoniac, gray	6.00 to 6.25
Sulphur, roll	1.85 to 2.15
Sulphur, flour	2.00 to 2.40
Sulphur, flowers	2.20 to 2.60
	Per gallon.
Alcohol, grain, U. S. proof	$2.54 to $2.57
Alcohol, denatured, 5-bbl. lots.	.41 to .42
Alcohol, denatured, ½-bbls	.46 to .47
Alcohol, wood, 95 to 97	.52 to .57
Alcohol, wood, purified	.80 to ..

PAVING MATERIALS.

This is the dullest season of the year, the demand is very light in all departments. City engineers are now working on plans for next year, but these will not be announced for several weeks. Prices continue unchanged, 30% asphaltum oil being quoted at 4 cts. per gal. Texico macadam asphalt, 90 to 95%, is 11 cts. per gal., f. o. b. New York or Philadelphia; A or X Tarvia in bbls. is 8½ to 9½ cts. per gal.; B grade in bbls. is 7 to 8 cts. per gal.

GRANITE BLOCK.—The price of block continues firm. Cape Ann blocks, delivered in New York City, are sold at $1.60 to $1.75 per sq. yd. Dressed block to lay with ¼-in. joint is $2 to $2.10 per sq. yd.

ASPHALTUM.—Prices of asphaltum are steady and firm. Trinidad is quoted at $25 per net ton. California asphaltum is $26 to $30 per net ton f. o. b. New York and $16 to $19 at point of shipment.

PAVING BLOCKS, WOOD.—Prices continue without change, as follows: For long leaf yellow pine blocks having not less than 20 lbs. oil per cu. ft., $1.85 is quoted for 4-in. block; $2.05 for 3½-in. block and $2.25 for 4-in. block. All these prices are per sq. yd., f. o. b. New York

VITRIFIED BRICK—Quotations are more or less nominal in view of the light business under contract. Prices are unchanged at 55 to 70 cts. per sq. yd. at point of shipment.

LUMBER.

The market is far from an active one, the supply being considerably in excess of the demand. Many sellers are now crowding their lumber on the market rather than holding it, as has been their custom for many months. They have seen the price steadily decline and are now anxious to get rid of their present material in order to start anew.

LONG LEAF YELLOW PINE.—The demand is far less active than it was a month ago. Prices are unchanged and for delivery from yard in New York and vicinity, for material classed as "Merchantable" under the 1905 rules of the Association prices are as follows:

Prices per Thousand Feet in Yard, New York.

	Length			
	20 ft. base.	21 to 25 ft.	26 to 30 ft.	31 to 35 ft.
8 in. wide and under by 8 in. thick and under	$31	$32	$33	$34
10 in. wide by 10 in. thick and under	33	34	35	36
12 in. wide by 12 in. thick and under	36	37	38	39
14 in. wide by 14 in. thick and under	43	44	46	46
16 in. wide by 16 in. thick and under	45	46	47	48

For pieces longer than 35 ft. and less than 40 ft. add from $4 to $8 to base price.

NORTH CAROLINA PINE.—Prices are without change as follows: For pieces 20 ft. long and less, in car lots, New York prices per thousand are as follows:

2 × 4-in.	$18	2 × 10-in.	$21
2 × 6-in.	18	2 × 12-in.	22
2 × 8-in.	18		

HEMLOCK.—The base price of Pennsylvania hemlock continues without change at $21. West Virginia can be obtained at $20.50. The following prices are ruling in New York:

Price Per Thousand f. o. b. cars New York.

	Length			
Size.	10 ft.	12 ft.	14 ft.	16 ft.
2 × 4-in.	$23.00	$21.00	$21.00	$23.00
2 × 6-in. to 2 x 10-in.	21.00	21.00	21.00	18 to 20
3 × 4-in. to 12 × 12-in.	21.50	21.50	22.00	19 to 21
1 × 8-in.	....	18.00	18.00	18.00
1 × 10-in. and 1 × 12-in.	....	18.50	18.50	18.50

CROSS TIES.—The railways are not purchasing cross ties in large quantities, nor are the sellers anxious to force the market. The "Cotton Belt" recently purchased about 5,000,000 ties from the National Lumber & Creosoting Co., Texarkana, Tex. Most of these ties will be oak. The following prices, quoted f. o. b. New York by J. S. Baxter Co., 15 William St., New York City, are without change from last month as follows:

	Cents each.
7 × 9-in. by 8 ft. 6-in.	79
6 × 9-in. by 8 ft.	74
6 × 8-in. by 8 ft.	69

Second-class, sound and square edge, are quoted as follows:

	Cents each.
7 × 9-in. by 8 ft. 6-in.	63
6 × 9-in. by 8 ft.	53
6 × 8-in. by 8 ft.	47

METALS

COPPER.—The October report of the Copper Producers' Association was made public Nov. 7. The statement as a whole showed a favorable condition of the copper metal trade. A slightly higher daily average production was shown, as compared with September, however, and some unfavorable comment was based on that fact, notwithstanding the month's operation resulted in a reduction of 9,631,800 lbs. in stocks. The deliveries into domestic consumption were 67,814,172 lbs., and there were exported 67,186,912 lbs. These items combined exceeded the output of 126,469,284 lbs. by the above amount, and reduced stocks on hand, as of Nov. 1, to 139,261,914 lbs.

Following the publication of the producers' report consumers displayed more interest in the market, and a firmer tone developed than had been in evidence for several months. The improvement in both sentiment and metal values continued throughout November, and at the close of the month the trade generally felt that the copper metal market had been freed from the depressing influence of unfavorable statistics for some time to come. All leading sellers of electrolytic copper advanced the price to 13 cts. delivered 30 days and 12.87½ cts. cash New York about Nov. 15. That price has been well maintained, and it is doubtful if any shading is now being done by prominent sellers. It is true that some holders of copper are offering at a small concession, but the tonnage involved is small or there are other irregular features which give the transactions a special character. Lake copper, while firm at 13 cts., has not held the usual differential, as compared with electrolytic, and the two grades have sold at practically the same price during the latter part of the month.

Reports from abroad have reflected satisfactory conditions of the foreign consumption of copper. The fortnightly statistics issued Nov. 15 was the seventeenth consecutive report to show a substantial reduction in English and French stocks. The total reduction in the stocks of these countries since March 1 is 33,230 tons, and the surplus, as of Nov. 15, was 75,000 tons.

Exports of copper for 28 days in November, from the United States, were 24,974 tons.

TIN.—The English Syndicate operations have been the principal features of the pig tin market during November. There have been other important developments, but these have had no effect on the price of the metal as yet. Among the latter is the closing down of a large number of tin-plate mills early in the month, and the Bunca auction, which took place Nov. 24. The former cut down the consumption capacity of the United States appreciably, and the latter released about 2,200 tons of tin, both of which added to the burden of the syndicate. Notwithstanding this, and contrary to the laws of trade, prices have been advanced since the first of last month. It is evident from these facts that the foreign operators have thorough control of the tin market, and that the limit of success in sustaining prices depends entirely upon their ability to finance the corner until a general trade revival sets in to consume the accumulated stocks. Almost invariably such operations have failed, but rapid expansion in tin consumption may supply the support for successful unloading in this case. Very little buying has been done by consumers in the local market for other than immediate needs. Some small lots changed hands at 37.40 cts. recently.

The arrivals of tin since Nov. 15 aggregate 3,306 tons, and it is estimated that deliveries into consumption will total about 3,000 tons.

LEAD.—The pig lead market has been firm. The American Smelting & Refining Co. advanced its price 10 points to 4.50 cts. for shipment lead during the latter part of November. Independent interests had been asking 5 points over the leading sellers in New York for some time, and they promptly followed with a 5-point increase, which makes the general price 4.50 cts. in New York. The demand is only fair. The prices of pipe and sheet lead are unchanged, as follows:

Sheet Lead.	Per lb.
Large lots	6.25 cts.
Small lots	6.75 cts.
Lead Pipe.	Per lb.
Large lots	5.75
Small lots	6.40

SPELTER.—The demand for spelter has not been heavy, but prices have held very firm. Producers are disinclined to part with the metal under 6.05 cts. in New York, and are talking a higher figure in the near future. Considerable reduction has taken place in the output, it is claimed, through the cutting of smelter capacity in the Kansas gas belt, and this will be intensified as the winter develops, and leave a meagre surplus with which to meet the early spring demands.

MISCELLANEOUS METALS.—Small lots of metal and metal products can be obtained from jobbers' stores, New York, at the following prices:

	Per lb.
Bismuth	$2.25
Brass tubes, iron pipe sizes:	
½-in.	.19
¾ to 3-in.	.18
3½-in.	.19
4-in.	.20
Brass, sheets	.14¼
Brass, rods	.14¼
Solder, ½ and ½ guaranteed	.24
Zinc sheets	.08½
Manganese bronze rods	.16
Manganese bronze in crucible form	.14
Monel metal, ingot	.16

OLD METALS.—A good demand for old metals for export has kept the local market more fairly active, and prices have advanced.

Miscellaneous lots of scrap metal amounting to about a ton can be sold to dealers in New York at about the following prices:

	Cents.
Copper, heavy and crucible	11.00 to 11.25
Copper, heavy and wire	10.75 to 11.00
Copper, light and bottoms	9.75 to 10.00
Brass, heavy	7.25 to 7.50
Brass, light	5.75 to 6.00
Heavy machine composition	9.75 to 10.00
Clean brass turnings	7.25 to 7.50
Composition turnings	8.25 to 8.50
Lead, heavy	3.75
Lead, tea	3.50
Zinc, scrap	4.00

GLASS.

WINDOW GLASS.—The directors of the Imperial Window Glass Co. appeared before the United States District Court Nov. 11 and submitted themselves to sentence by declining to contest the charge of a violation of the Sherman Anti-trust act. Each officer and director was fined $500, and a fine of $2,500 was imposed upon the corporation itself, with costs. The attorneys for the company stated that the dissolution of the combine would immediately follow. The court reminded the defendants that they were not to infer from the fact that the fines imposed were light, that imprisonment should not be the penalty in such cases; but that he had taken into consideration the circumstance that the indicted directors had assisted the Government materially in its investigation and had not prosecuted business after the demurrer was dismissed in October.

Business is fair. At present the discount is unchanged at 90% from list for all sizes of single and double strength.

The net prices per box of 50 sq. ft., at the discount named, are as follows:

American Window Glass.

	Single Thickness, Price per box, 50 sq. ft.	
Size of Glass, Ins.	A.	B.
6 × 8 to 10 × 15	$2.40	$2.20
11 × 14 12 × 13 to 14 × 20	2.52	2.40
10 × 26 to 16 × 24	2.70	2.52
18 × 22 20 × 20 to 20 × 30	2.87	2.64
15 × 36 to 24 × 30	2.96	2.70
26 × 28 to 24 × 36	3.14	2.79
26 × 34 28 × 32 to 30 × 40 30 × 30	3.47	2.94
32 × 38 34 × 36 to 30 × 50	4.00	3.46
30 × 52 to 30 × 54	4.27	3.76

VAULT LIGHTS.—Prices continue without change. Contractors furnishing their own molds can obtain glass at from 4 to 5 cts. per lb. Bull's eyes, 3-in. in diameter, are 3 cts. each, and square lights, 3½ × 3½, are 5 to 6 cts. each

SKYLIGHT GLASS.—Trade is dull and little new work is in prospect. Prices continue without change from the last report, as follows:

Thickness, ins.	Price per sq. ft.
1/8	7 cts.
3/16	10 cts.
1/4	15 cts.

Wired skylight glass, ¼-in. thick, is 25 cts. per sq. ft.

PLATE GLASS.—The price is unchanged from last month at 89% discount from list.

In the accompanying table the net price of polished plate glass is figured at this discount. These prices apply to the glass only, an extra charge being made for boxing or cutting to special sizes.

NET PRICES OF POLISHED PLATE GLASS IN DOLLARS.

Length, feet.	Width, Feet 1	1.5	2	2.5	3	3.5	4	4.5	5	6	7	8	9	10
1	$0.24	$0.38	$0.50	$0.66	$0.86	$1.04	$1.18	$1.38	$1.52	$2.40	$2.86	$3.25	$3.75	$4.17
1.5	....	.59	.86	1.10	1.42	2.10	2.40	2.76	3.08	3.75	4.38	5.00	5.70	6.90
2	....	....	1.18	1.59	2.40	2.86	3.25	3.75	4.17	5.00	5.90	6.85	7.85	8.90
2.5	....	....	....	2.55	3.08	3.68	4.20	4.70	5.30	6.40	7.60	8.90	10.10	11.10
3	....	....	....	....	3.75	4.40	5.00	5.75	6.90	7.90	9.40	10.70	12.25	13.60
3.5	....	....	....	....	....	5.20	5.90	6.75	7.60	9.40	11.10	12.70	14.40	15.90
4	....	....	....	....	....	....	6.86	7.90	8.90	10.70	12.70	14.50	16.40	18.20
4.5	....	....	....	....	....	....	....	9.10	10.10	12.25	14.40	16.40	18.40	20.50
5	....	....	....	....	....	....	....	....	11.10	13.60	15.90	18.20	20.50	27.00
6	....	....	....	....	....	....	....	....	....	18.20	19.00	21.80	25.00	27.80
7	....	....	....	....	....	....	....	....	....	....	22.20	26.00	29.40	32.50
8	....	....	....	....	....	....	....	....	....	....	....	29.70	33.50	37.30
9	....	....	....	....	....	....	....	....	....	....	....	....	38.00	42.00
10	....	....	....	....	....	....	....	....	....	....	....	....	....	47.50
11	4.60	7.20	9.80	12.50	15.00	17.50	20.00	22.60	26.00	30.60	36.20	41.20	47.20	65.00
12	5.00	7.90	10.70	13.60	16.40	19.00	21.80	25.00	28.00	33.50	39.30	44.80	63.50	70.80
13	5.50	8.70	11.80	14.80	17.75	20.80	24.10	27.20	30.10	36.40	43.50	61.50	69.00	112.50
14	5.90	9.40	12.70	15.90	19.00	22.25	26.00	29.20	32.50	39.40	46.70	66.00	109.00	146.30
15	....	....	....	....	....	24.40	28.00	31.30	34.80	42.00	61.80	70.80	141.00	163.50
16	....	....	....	....	....	33.00	37.80	42.50	47.20	55.50	66.00	109.00	157.00	202.00
17	....	....	....	....	....	35.00	40.00	45.30	50.00	60.00	70.30	143.00	192.00	294.00
18	....	....	....	....	....	38.00	42.50	47.80	53.20	63.50	109.00	157.00	280.00	311.00

OILS AND PAINTS.

PETROLEUM PRODUCTS.—The demand for petroleum products has fallen off in the last few weeks. The Southern Pacific has recently bought about 1,000,000 bbls. of fuel oil at 55 cts. per bbl. This oil is to be delivered at the railway. The Standard Oil Co. quotes the prices of crude oil in bbls. at the wells as follows: Pennsylvania, Second Sand and Tiona, $1.30; Mercer black is 87 cts.; Corning, 77 cts.; New Castle, 84 cts.; Indiana, 77 cts.; Illinois, 60 cts.; Illinois heavy, below 30 gravity, 52 cts.; Kansas heavy, 30 cts.

In the New York market petroleum from tank wagon is unchanged at 6 cts. per gal.

Auto naphtha and stove gasoline is 1 ct. per gal. lower at 13¾ cts.

Fuel oil is 90 cts. to $1 per bbl.

LINSEED OIL.—Price fluctuations during the last month have been small and the demand has dropped off appreciably. Flaxseed is now being imported, but no relief from the high price is expected until another crop of flaxseed matures. Linseed oil is now quoted at 97 to 98 per gal.

SPIRITS TURPENTINE.—The price of turpentine is unchanged, but the demand is better. Spirits is now selling at 79 cts. per gal. in 5-bbl. lots New York. In Charleston, S. C., the price is 75 cts. and in Savannah, Ga., 76 cts.

PAINTS.—The demand is small due both to the unseasonable weather and the high price of linseed oil. Prices of white lead in oil are unchanged. For lots of 500 lbs. or over, in 100 to 250 and 500-lb. kegs, 7½ cts. per lb. is quoted; in 25 and 50-lb. kegs, 7¾ cts. is quoted. Red lead and litharge in bbls., half bbls. and 100-lb. kegs, is 8 cts. per lb.

Graphite paint is moving slowly. The best grades of graphite paint in linseed oil can be purchased at $1.40 per gal.

Hydrex preservative paint is 75 cts. per gal. in bbl. lots New York City.

Colors in oil are quoted at the following prices per lb.: Lamp black, 12 to 14 cts.; Chinese blue, 36 to 46 cts.; Prussian blue, 32 to 36 cts.; Van Dyke brown, 11 to 14 cts.; Chrome green, 12 to 16 cts. Raw or Burnt Sienna, 12 to 15 cts.; Raw or Burnt Umber, 11 to 14 cts.

MISCELLANEOUS.

ROPE.—Prices are slightly lower and the demand is small. The revised quotations are as follows:

ROPE.—Pure Manila, 8¾ to 9¼ cts. per lb.; second grade, 7¾ to 8¼ cts.; hardware grades, 7¼ to 7¾ cts. per lb. Pure Sisal is 6¾ cts. for the highest grades, and 6¼ cts. for less desirable grades. Jute rope in commercial sizes is 5¼ to 6¼ cts. per lb.

ROOFING SLATE.—The prices of roofing slate are unchanged from last month as follows: the quotations are per "square," or 100 sq. ft. of roof surface in carload lots of the sizes in most general use, f. o. b. quarry stations:

	Per 100 sq. ft.
Vermont, sea green	$4.00 to $4.50
Pennsylvania, Bangor Ribbon	4.00 to 4.50
Maine, Brownsville No. 1	6.00 to 7.75
Maine, Brownsville No. 2	5.60 to 6.00
Red	10.50 to 12.25
Unfading green	4.50 to 5.00
Genuine Bangor	4.50 to 6.00
Pen Argyle	4.00 to 4.50

PINE TAR.—Prices are without change but the market is strong. Kiln is quoted at $7.50 and retort at $7.25. These prices are per bbl. of 480 lbs.

OAKUM.—Prices of Oakum continue unchanged. The best grades are selling at 6¼ cts. U. S. Navy, 5¾ cts., and plumbers' oakum at 2¼ cts.

WATERPROOFING.—The prices for carload lots f. o. b. cars New York, are as follows: Hydrex waterproofing felt, $1.25 per 100 sq. ft.; Hydrex compound "A," 26 cts. per gal.; Hydrex compound "B," 18 cts. per gal.

Texaco waterproofing cement is $30 per ton in car lots f. o. b. cars New York or Philadelphia.

Asphaltum for waterproofing is sold at $25 to $27 per net ton.

Glidden's graphite acid proof coating is sold at $1.25 per gal. in bbl., and ½ bbls., and $1.40 per gal. in 5 gal. cans. These prices are f. o. b. Cleveland or for delivery from warehouse, New York, Chicago, St. Louis, Boston or Atlanta.

WATERPROOFED PORTLAND CEMENT.

Portland cement waterproofing by the McCormick Process is sold by the makers, McCormick Portland Cement Co. at 7 cts. per lb. delivered at the nearest railroad station subject to the following discounts: Less than ton lots, 2%; less than five tons, 5%; less than ten tons, 5 and 2%; less than 20 tons, 5 and 5%; less than 30 tons, 5 and 7½%.

ROOFING CEMENT.—Prices are unchanged at $25 per ton for Texaco.

EXPLOSIVES.—Dynamite of the kind usually used by contractors is approximately 11 to 13 cts. per lb. f. o. b. factory, in ton lots. Blasting powder, classified as "soda" grade, is sold at $1.20 to $1.40 per keg or 25 lbs. in lots of 10,000 lbs. The following prices prevail on Trojan in carload lots, minimum 24,000 lbs., f. o. b. Pacific Coast points; No. 1, 13½ cts.; No. 2, 10½ cts.; No. 3, 10 cts. They have a disruptive force equivalent to 60%, 40% and 30% of nitro-glycerine.

Exploders, per hundred, are sold at the following prices: 4 ft., $3.60; 6 ft., $4.10; 8 ft., $4.60; 10 ft., $5.10; 12 ft., $5.60; 16 ft., $6.60; 20 ft., $7.50; 24 ft., $9.40; 30 ft., $12; 36 ft., $14.60.

Caps in lots of 10,000 are $7 to $8 per thousand.

Blasting machines for 10 holes are $12; 25 holes, $20; 50 holes, $40; 100 holes, $60.

PAPER.—Prices are without change from last month, as follows:

Tarred Paper:	Per roll of 108 sq. ft.
Standard 2-ply, 40 lbs	$0.45
Extra heavy, 2-ply, 45 lbs	.55
Standard 3-ply, 60 lbs	.65
Extra heavy, 3-ply, 70 lbs	.75

Rosin Sized Sheathing:	Per roll of 500 sq. ft.
Light, 35 lbs	$0.38
Medium, 30 lbs	.45
Heavy, 40 lbs	.60

ASBESTOS.—Asbestos building felt and seheathing in less than ton lots is 3½ cts. per lb. for the light, weighing from 6 to 30 lbs. per 100 sq. ft.; 4 cts. per lb. is charged for the heavy weighing from 45 to 56 lbs. per 100 sq. ft.

Millboard is made in standard sheets, 40 × 40 ins., and 41 × 4 ins. It varies in thickness from 1-32 to ½-in., and in weight from 2 to 27 lbs. per sheet. The net price in 100 lb. lots is 5 cts. per lb.

Transite, asbestos wood, used for fireproofing, ventilators and smoke jacks, comes in standard sheets, 36 × 48 ins., 42 × 48 ins., and 42 × 96 ins. The prices f. o. b. factory, Nassau, N. H., are as follows:

Thickness.	Weight.	Price.
⅛-inch	1 lb.	$0.08
3/16-inch	1½ lbs.	.12
¼-inch	2 lbs.	.16
5/16-inch	2½ lbs.	.20
⅜-inch	3 lbs.	.28
7/16-inch	3½ lbs.	.28
½-inch	4 lbs.	.32
9/16-inch	4½ lbs.	.36
⅝-inch	5 lbs.	.40
¾-inch	6 lbs.	.44
⅞-inch	7 lbs.	.48
1 inch	8 lbs.	.52
1¼ inches	10 lbs.	.56
1½ inches	12 lbs.	.64
1¾ inches	16 lbs.	.72
2 inches	16 lbs.	.80

RUBBER.—The rubber market, as concerning raw materials, has moved in two directions. While the price of crude products has advanced, the quotations for finished products, such as automobile tires and foot wear, has declined. The upward movement in crude rubber has been slight. Up River Para, fine, is 5 cts. a lb. higher at $1.45 to $1.50. Up River Para Coarse has advanced 10 to 15 cts. and is now quoted at 75 to 80 cts. Concho Ball is $1 to $1.05.

LIGHTERAGE LIMITS.—The e delivery or "Lighterage Limits" in New York City are as follows: In Manhattan, f n a point opposite the Fort Lee ferry, th along the Hudson River around the ttery and north along the East and Harle Rivers to the Jerome Ave. Bridge at 15 st. In New Jersey, south from Fort L ferry to Bayonne City; points on the nor and east shore at Staten Island between B ge Creek (Arlington) and Clifton, both in sive, and including Elm Park, Eristina a Shooters Island. In Brooklyn from 69t St., Bay Ridge, north to Port Cove, As ia, Long Island City.

LINE CONSTRUCTI N.

ALUMINUM WIRE.—The dem d is far from active and prices are with t change at 31 cts. base.

POLES.—Cedar poles are quoted s follows by the R. D. Dowie Pole Co., 432 New York Block, Seattle, Wash. The price f. o. b. loading point:

Length in ft.	Diameter at top. 8-in.	9-in.
30	$2.70	....
35	3.15	3.50
40	3.60	4.00
45	...	4.50
50	...	5.00
55	...	5.50
60	...	7.20
65	...	9.75
70	...	10.50
75	...	11.25
80	...	12.00

White cedar poles are quoted by the Backus-Judd Lumber & Cooperage Co., Minneapolis, Minn., f. o. b. Rex, Mich., freight rate to Chicago 12 cts., as follows:

Length in feet.	Price each — Diameter at top. 5-in.	6-in.	7-in.
25	$0.65	$1.10	$1.50
30	...	1.60	3.75
35	...	4.00	5.00
40	...	5.25	7.00
45	...	7.25	9.50
50	...	10.00	11.00

Chestnut poles, f. o. b. Mechanicsville, N. Y., are quoted by T. C. Luther of that place as follows:

Length in feet.	Price each — Diameter at top. 5-in.	6-in.	7-in.
25	$1.50	$2.00	$2.75
30	2.50	2.75	3.25
35	2.75	3.25	4.00
40	3.25	4.00	5.50
45	4.00	5.50	7.50
50	5.50	7.50	9.50

FIR CROSS ARMS.—Prices are unchanged as follows:

Length. Size, 3¼ × 4¼-in.	Price per arm in cts. Pacific Coast.	Chicago.	New York.
3 ft., 2-pin	8	13½	15½
4 ft., 2-pin	11	18½	21
5 ft., 4-pin	16	26½	28½
6 ft., 4 and 6-pin	20½	31½	36
8 ft., 6 and 8-pin	28	43	48½
10 ft., 8, 10 and 12-pin	37	55½	67½

TELEGRAPH WIRE.—For lots of fair size, the wire measured in Birmingham wire gage, the prices in cts. per lb. are as follows: "Extra Best Best," Nos. 6 to 9, 4⅜ cts.; Nos. 10 and 11, 4½ cts.; No. 12, 4⅝ cts.; No. 14, 5⅛ cts. "Best Best," Nos. 6 to 9, 3¼ cts.; Nos. 10 and 11, 3⅜ cts.; No. 12, 3½ cts.; No. 14, 4 cts. Actual freight is allowed from Trenton, N. J., where it does not exceed 25 cts. per 100 lbs.

INSULATORS.—Prices are without change. Glass insulators in lots of more than 1,000 and less than 10,000 are sold at the following prices per 1,000: Double petticoat, 20 oz., $33; Western Union, $30.25; No. 2 cable, $53.90; No. 4 cable, $210; Muncie type, 7-in., $236.50; No. 3 triple petticoat, 4½-in., $90.75.

COPPER WIRE.—The tonnage now being sold is large compared with any but the boom years and there is a fair prospect that business will improve next spring. No. 8 wire is selling at 14 to 14.25 cts. per lb. base.

A review of the copper market will be found under "Metals" in another part of this supplement.

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December 1, 1910.

The attention of Contractors and Financiers is called to the opportunity which will soon be open to bid on the construction of about $3,000,000 of Irrigation Work near Stockton, California.

The Irrigation Systems to be built are those of the South San Joaquin Irrigation District and the Oakdale Irrigation District. The former contains about 71,000 acres, is 18½ miles long east and west by 6 miles average breadth north and south, and lies along the north side of the Stanislaus River, a large Sierra Nevada stream. The northwest corner of the South San Joaquin District is only 5 miles from Stockton, a city of about 25,000 inhabitants at the head of San Francisco Bay navigation. Stockton is a railroad center, and the South San Joaquin District is intersected by the Southern Pacific and the Santa Fe Railroads, while the Western Pacific runs along its western edge and another Southern Pacific line a mile east of its eastern boundary, through the Oakdale District. The wagon roads are numerous and excellent.

The Oakdale District, of about 65,000 acres, lies east of the South San Joaquin District, and south of it along the south bank of the Stanislaus River and is adjacent to the well-known Modesto and Turlock Irrigation Districts, now in full operation.

Both Districts were organized in 1909 under the Wright-Bridgeford law, a California Law governing the organization and operation of Mutual or Citizen's Irrigation Districts. Such districts have the status of municipalities and are administered by a Board of Directors elected by the people. The districts have the power to issue bonds or to raise money by direct taxation. The bonds are a lien upon the lands. By the law, these bonds are 30-year bonds bearing 5% interest, and are redeemed from the 21st to the 30th years. They can not be sold for less than par and can not be used in (direct) payment for construction, lands or existing irrigation systems. Under these conditions, no bids will be considered unless accompanied by separate and distinct guarantees that a purchaser will be found for a block of bonds at least as large as the particular contract contemplated, at a rate for the bonds not less than their par or face value.

The South San Joaquin Irrigation District was organized (by a public election) on May 11, 1909. On June 15th the writer was retained as Chief Engineer, and on June 20th began his field-examination and surveys. The preliminary surveys were completed in August, and on Oct. 8, 1909, a Report was rendered to the Directors, with studies of several sources, and with Maps, Designs and Estimates of Cost for the complete Irrigation System recommended. A Bond Election was then called and on Dec. 30, 1909, bonds to the amount of $1,875,000 were voted by a majority of about 5 to 1.

Some time later, the Oakdale Irrigation District (of which Oakdale, population about 1,600, in the center of its District and on the Southern Pacific, Santa Fe and Sierra railroads, is the principal town), voted $1,600,000 bonds by a majority of nearly 40 to 1.

Soon after the election at which the South San Joaquin bonds were voted, studies and cost-estimates were begun by the writer to determine the advisability of purchasing the only adverse irrigation system and water rights; and after protracted negotiations an agreement was closed with the owners for its purchase.

The proceedings and bonds of both Districts have been passed on favorably by Judge E. A. Bridgeford, of San Francisco, the author of the Bridgeford law (Wright-Bridgeford or amended Wright law). All the municipal irrigation districts of California (five in all, including the South San Joaquin and the Oakdale) are now working under this law. As an additional safeguard, the Directors of both the South San Joaquin and the Oakdale Districts started confirmation proceedings for the bonds in the Courts, as provided for in the Bridgeford law, and favorable decisions are expected before the close of the present month.

The South San Joaquin bonds were received from the printers in June, 1910, and after the required legal advertisement in local papers, $459,500 of them were sold at par on July 20, 1910, $325,000 of the proceeds being used to purchase a half interest in the old irrigation system, $20,000 for final locations and plans and for other District expenses, and the remainder for the purchase of reservoir lands. The other half of the old irrigation system was purchased in a similar way by the Oakdale District, and on July 1st, 1910, the two Districts took over the old irrigation system and since then have been operating it themselves jointly, irrigating about 3,000 acres in each District.

On July 7, 1910, as soon as subscriptions had been received guaranteeing the sale of some bonds, a survey party was put in the field by the South San Joaquin District and the final location, plans and estimates of that system were begun. The surveys of 1909 resulted in developing a good system at a reasonable cost; but the object of the present surveys is to develop the best system at the least cost. The surveys and estimates for the Supply Canal (about 15 miles long) are now nearly completed, and show the practicability of a much better canal than that of the preliminary report, at a cost materially less.

On May 12, 1910, a special tax of $35,000 was voted by the people of the South San Joaquin District, by a majority of about 4 to 1, $20,000 for the completion of the engineering plans and $15,000 for other District expenses. These taxes are now being received and the engineering plans are being rushed to completion. A similar tax of $30,000 has been voted by the Oakdale District by a majority of about 33 to 1.

The official assessed valuation of the South San Joaquin District, which was the basis of the $35,000 tax levy, was $2,870,968.85, or at the rate of about $40 per acre. From the general practice of California Assessors, this corresponds to an actual value of about $80 per acre without improvements, or to about $5,750,000 real value for the 71,000 acres. The land is all under cultivation and three years ago, before the irrigation movement began, its general average price was $60 per acre. The ruling price is now about $85 per acre, with very few owners who care to sell at that price.

The assessment of the Oakdale District (improvements not being included) was about $2,200,000.

The construction work to be done is about as follows:

BY THE TWO DISTRICTS JOINTLY.

Masonry Diversion—Dam about 80 ft. high in Stanislaus River Canyon, with Head-works.

About 3 miles of 1,700 cu. ft. sec. Canal in Canyon, all concrete lined, on sidehill slopes, principally sound slate excavation. Includes enlargement of two 1,000 ft. Tunnels.

Tunnel to carry canal out of Canyon, 2,900 ft. long and about 15 ft. × 15 ft. In sound slate, concrete-lined.

About 3 or 6 miles of 1,700 cu. ft. sec. canal, all in hard-pan, largely concrete-lined.

Flume or inverted-siphon of permanent construction, to carry 1,700 cu. ft. sec.; about 1,900 ft. long and 60 ft. max. head.

BY THE SOUTH SAN JOAQUIN DISTRICT ALONE.

About 8 or 5 miles of 850 cu. ft. sec. canal to edge of District, in hard-pan, probably unlined.

Earth Dam, about 60 ft. high by 3,400 ft. long, to store about 48,000 acre-feet.

Distribution System consisting of about 55 miles large canals, about 400 miles 45 cu. ft. sec. Ditches, both mainly in sandy ground.

Large number of Concrete Drops and head-works, some Highway and Railroad bridges, etc., etc.

DRAINAGE WORKS.

BY THE OAKDALE DISTRICT ALONE.

A somewhat similar Irrigation System, with somewhat less mileage in Distribution System.

A large Inverted Siphon to carry the supply across the Stanislaus River.

Correspondence is solicited from such contractors as can secure bidders for the bonds at par, and no other than such contractors can be considered. This means is taken to bring the project before the greatest number of such contractors in the least time.

Bids will be considered preferably for the South San Joaquin System as a whole; or the work may be divided into several parts, for which separate bids will be considered.

EDWIN DURYEA, JR.,
Chief Engineer, S. S. J. Irrig. Dist.
1315 Humboldt Bank Building,
San Francisco, Cal.

WATER-WORKS.

OFFICE BOARD OF PUBLIC WORKS.
Grand Rapids, Mich., Nov. 17, 1910.

Sealed proposals will be received at the office of the Board until January 19, 1911, at 8.00 p. m., for the construction of Buildings. Filters and Equipment for the City of Grand Rapids, Michigan, according to the plans and specifications on file at the office of the Board or at the office of Hering & Fuller, 170 Broadway, New York, N. Y.

The Board reserves the right to reject any or all bids.

Each bidder shall deposit with his proposal a certified check or certificate of deposit payable to the order of Henry J. Klevorn, President, in the sum of 5 per cent. of his proposal, but not less than $50.00, to be forfeited to the City of Grand Rapids in case he shall fail to enter into contract, in accordance with his proposal, should his proposal be accepted by the Board of Public Works.

All proposals must be made upon blanks that will be furnished upon application at the office of the Board. By order of the Board.

HENRY J. KLEVORN,
President.
Attest: SAMUEL A. FRESHNEY,
Secretary and General Manager.

WATER PIPE.

Bloomfield, N. J.

Sealed proposals will be received at the office of the Town Clerk of the Town of Bloomfield, N. J., until Tuesday, December 6th, 1910, at 8 P. M., for the furnishing of cast-iron water pipe. The following are approximate quantities, which are for the purpose of comparing bids only:

216,000 lbs., more or less, 6" bell and spigot type cast-iron water pipe, about 30 lbs. per lineal foot.

Plans and specifications may be seen at the office of Earnest Baechlin, Town Engineer, Bloomfield National Bank Bldg., Bloomfield, N. J.

Each bid must be accompanied by certified check for $100 drawn to the order of the Town of Bloomfield, N. J. as a guarantee of the good faith of the bidder.

The Town Council reserves the right to reject any or all bids. Each proposal must be sealed and indorsed, "Cast-Iron Water Pipe Proposals," and addressed to Raymond F. Davis, Town Clerk, Bloomfield, N. J. By order of the Town Council.

RAYMOND F. DAVIS,
Town Clerk.

For other Proposal Advertisements see pages 51, 52, 53, 54, 56 of Advertisements and Construction News page 272.

Situations Wan d

COLLEGE GRADUATE (25), 4 ex- perience, wishes position with en- gineer or contractor; refere Ad- dress "S. B. 22," Engineer ws, New York. 2-1t

GRADUATE ELECTRICAL ENGIN ten years' experience mechanical trical engineering; experience ling men on industrial work sales manager; woud accept position in or near New York. "W. B. 22," Engineering Ne York. 1t

Miscellaneous Wa s

WANTED—Mechanical and Topog al Drafting and Computing. Addr K. 22," Engineering News, New Yor 2-1t

A COMPETENT elderly surveyor to get work for outside parties; la out maps from deeds, sketches for ing engineers, surveyors, etc.; maps let- tering neatly done; price ate. ERNST ZIEGLER, 82 Ave. A New York. 22-1t

PLEASE NOTE—I want three or fo non- conflicting lines of general powe me- chanical and electrical) appara to handle in New York territory, wit New York City as base, on salary an om- mission. Only first-class machin or apparatus such as can be used in first- class installations. I am an experienced engineer and sales manager and a sell- ing arrangement with such manufactur- ers will be advantageous to both of us. Address "X. B. 22," Engineering News, New York. 22-1t

Situations Open

WANTED—Mechanical Draftsman, experienced in engine, pump and plant design. Address, stating references and salary desired, "Z. B. 22," Engineering News, New York. 22-1t

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